**Section 611.APPENDIX A Regulated Contaminants**

Microbiological Contaminants

Contaminant (units): Total Coliform Bacteria

Traditional MCL in mg/ℓ: TT

To convert for CCR, multiply by: −

MCL in CCR units: TT

MCLG: N/A

Major sources in drinking water: Naturally present in the environment.

Health effects language: Use language found in Section 611.883(h)(7)(A)(i)

Contaminant (units): E. coli

Traditional MCL in mg/ℓ: Routine and repeat samples are total coliform-positive and either is E. coli-positive or system fails to take repeat samples following E. coli-positive routine sample or system fails to analyze total coliform-positive repeat sample for E. coli.

To convert for CCR, multiply by: −

 MCL in CCR units: Routine and repeat samples are total coliform-positive and either is E. coli-positive or system fails to take repeat samples following E. coli-positive routine sample or system fails to analyze total coliform-positive repeat sample for E. coli.

MCLG: 0

Major sources in drinking water: Human and animal fecal waste.

Health effects language: E. coli are bacteria whose presence indicates that the water may

be contaminated with human or animal wastes. Human pathogens 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, the elderly, and people with severely-compromised immune systems.

Contaminant (units): Fecal Indicators (enterococci or coliphage).

Traditional MCL in mg/ℓ: TT.

To convert for CCR, multiply by: −

MCL in CCR units: TT.

MCLG: N/A

Major sources in drinking water: Human and animal fecal waste.

Health effects language: Fecal indicators are microbes whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term health 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.

Contaminant (units): Total organic carbon (ppm)

Traditional MCL in mg/ℓ: TT

To convert for CCR, multiply by: –

MCL in CCR units: TT

MCLG: N/A

Major sources in drinking water: Naturally present in the environment.

Health effects language: Total organic carbon (TOC) has no health

effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts 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.

Contaminant (units): Turbidity (NTU)

Traditional MCL in mg/ℓ: TT

To convert for CCR, multiply by: –

MCL in CCR units: TT

MCLG: N/A

Major sources in drinking water: Soil runoff.

Health effects language: 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

Contaminant (units): Beta/photon emitters (mrem/yr)

Traditional MCL in mg/ℓ: 4 mrem/yr

To convert for CCR, multiply by: –

MCL in CCR units: 4

MCLG: 0

Major sources in drinking water: Decay of natural and man-made deposits.

Health effects language: 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.

Contaminant (units): Alpha emitters (pCi/ℓ)

Traditional MCL in mg/ℓ: 15 pCi/ℓ

To convert for CCR, multiply by: –

MCL in CCR units: 15

MCLG: 0

Major sources in drinking water: Erosion of natural deposits.

Health effects language: 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.

Contaminant (units): Combined radium (pCi/ℓ)

Traditional MCL in mg/ℓ: 5 pCi/ℓ

To convert for CCR, multiply by: –

MCL in CCR units: 5

MCLG: 0

Major sources in drinking water: Erosion of natural deposits.

Health effects language: 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.

Contaminant (units): Uranium (μg/ℓ)

Traditional MCL in mg/ℓ: 30 μg/ℓ

To convert for CCR, multiply by: –

MCL in CCR units: 30

MCLG: 0

Major sources in drinking water: Erosion of natural deposits.

Health effects language: 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.

Inorganic Contaminants

Contaminant (units): Antimony (ppb)

Traditional MCL in mg/ℓ: 0.006

To convert for CCR, multiply by: 1000

MCL in CCR units: 6

MCLG: 6

Major sources in drinking water: Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder.

Health effects language: 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.

Contaminant (units): Arsenic (ppb)

Traditional MCL in mg/ℓ: 0.010

To convert for CCR, multiply by: 1000

MCL in CCR units: 50

MCLG: 0

Major sources in drinking water: Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.

Health effects language: 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): Asbestos (MFL)

Traditional MCL in mg/ℓ: 7 MFL

To convert for CCR, multiply by: –

MCL in CCR units: 7

MCLG: 7

Major sources in drinking water: Decay of asbestos cement water mains; erosion of natural deposits.

Health effects language: 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.

Contaminant (units): Barium (ppm)

Traditional MCL in mg/ℓ: 2

To convert for CCR, multiply by: –

MCL in CCR units: 2

MCLG: 2

Major sources in drinking water: Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.

Health effects language: Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.

Contaminant (units): Beryllium (ppb)

Traditional MCL in mg/ℓ: 0.004

To convert for CCR, multiply by: 1000

MCL in CCR units: 4

MCLG: 4

Major sources in drinking water: Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries.

Health effects language: Some people who drink water containing beryllium well in excess of the MCL over many years could develop intestinal lesions.

Contaminant (units): Bromate (ppb)

Traditional MCL in mg/ℓ: 0.010

To convert for CCR, multiply by: 1000

MCL in CCR units: 10

MCLG: 0

Major sources in drinking water: By-product of drinking water disinfection.

Health effects language: Some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer.

Contaminant (units): Cadmium (ppb)

Traditional MCL in mg/ℓ: 0.005

To convert for CCR, multiply by: 1000

MCL in CCR units: 5

MCLG: 5

Major sources in drinking water: Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints.

Health effects language: Some people who drink water containing cadmium in excess of the MCL over many years could experience kidney damage.

Contaminant (units): Chloramines (ppm)

Traditional MCL in mg/ℓ: MRDL=4

To convert for CCR, multiply by: –

MCL in CCR units: MRDL=4

MCLG: MRDLG=4

Major sources in drinking water: Water additive used to control microbes.

Health effects language: Some people who drink 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.

Contaminant (units): Chlorine (ppm)

Traditional MCL in mg/ℓ: MRDL=4

To convert for CCR, multiply by: −

MCL in CCR units: MRDL=4

MCLG: MRDLG=4

Major sources in drinking water: Water additive used to control microbes.

Health effects language: Some people who drink 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.

Contaminant (units): Chlorine dioxide (ppb)

Traditional MCL in mg/ℓ: MRDL=800

To convert for CCR, multiply by: 1000

MCL in CCR units: MRDL=800

MCLG: MRDLG=800

Major sources in drinking water: Water additive used to control microbes.

Health effects language: Some infants and young children who drink water containing chlorine dioxide well 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.

Contaminant (units): Chlorite (ppm)

Traditional MCL in mg/ℓ: MRDL=1

To convert for CCR, multiply by: –

MCL in CCR units: MRDL=1

MCLG: MRDLG=0.8

Major sources in drinking water: By-product of drinking water disinfection.

Health effects language: Some infants and young children who drink water containing chlorite well 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): Chromium (ppb)

Traditional MCL in mg/ℓ: 0.1

To convert for CCR, multiply by: 1000

MCL in CCR units: 100

MCLG: 100

Major sources in drinking water: Discharge from steel and pulp mills; erosion of natural deposits.

Health effects language: Some people who use water containing chromium well in excess of the MCL over many years could experience allergic dermatitis.

Contaminant (units): Copper (ppm)

Traditional MCL in mg/ℓ: AL=1.3

To convert for CCR, multiply by: –

MCL in CCR units: AL=1.3

MCLG: 1.3

Major sources in drinking water: Corrosion of household plumbing systems; erosion of natural deposits.

Health effects language: 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.

Contaminant (units): Cyanide (ppb)

Traditional MCL in mg/ℓ: 0.2

To convert for CCR, multiply by: 1000

MCL in CCR units: 200

MCLG: 200

Major sources in drinking water: Discharge from steel/metal factories; discharge from plastic and fertilizer factories.

Health effects language: 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.

Contaminant (units): Fluoride (ppm)

Traditional MCL in mg/ℓ: 4

To convert for CCR, multiply by: –

MCL in CCR units: 4

MCLG: 4

Major sources in drinking water: Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.

Health effects language: 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 or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.

Contaminant (units): Lead (ppb)

Traditional MCL in mg/ℓ: AL=0.015

To convert for CCR, multiply by: 1000

MCL in CCR units: AL=15

MCLG: 0

Major sources in drinking water: Corrosion of household plumbing systems; erosion of natural deposits.

Health effects language: 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.

Contaminant (units): Mercury (inorganic) (ppb)

Traditional MCL in mg/ℓ: 0.002

To convert for CCR, multiply by: 1000

MCL in CCR units: 2

MCLG: 2

Major sources in drinking water: Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland.

Health effects language: Some people who drink water containing inorganic mercury well in excess of the MCL over many years could experience kidney damage.

Contaminant (units): Nitrate (ppm)

Traditional MCL in mg/ℓ: 10

To convert for CCR, multiply by: –

MCL in CCR units: 10

MCLG: 10

Major sources in drinking water: Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.

Health effects language: 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.

Contaminant (units): Nitrite (ppm)

Traditional MCL in mg/ℓ: 1

To convert for CCR, multiply by: –

MCL in CCR units: 1

MCLG: 1

Major sources in drinking water: Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.

Health effects language: 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): Selenium (ppb)

Traditional MCL in mg/ℓ: 0.05

To convert for CCR, multiply by: 1000

MCL in CCR units: 50

MCLG: 50

Major sources in drinking water: Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.

Health effects language: 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.

Contaminant (units): Thallium (ppb)

Traditional MCL in mg/ℓ: 0.002

To convert for CCR, multiply by: 1000

MCL in CCR units: 2

MCLG: 0.5

Major sources in drinking water: Leaching from ore-processing sites; discharge from electronics, glass, and drug factories.

Health effects language: 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

Contaminant (units): 2,4-D (ppb)

Traditional MCL in mg/ℓ: 0.07

To convert for CCR, multiply by: 1000

MCL in CCR units: 70

MCLG: 70

Major sources in drinking water: Runoff from herbicide used on row crops.

Health effects language: 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.

Contaminant (units): 2,4,5-TP (silvex) (ppb)

Traditional MCL in mg/ℓ: 0.05

To convert for CCR, multiply by: 1000

MCL in CCR units: 50

MCLG: 50

Major sources in drinking water: Residue of banned herbicide.

Health effects language: Some people who drink water containing silvex in excess of the MCL over many years could experience liver problems.

Contaminant (units): Acrylamide

Traditional MCL in mg/ℓ: TT

To convert for CCR, multiply by: –

MCL in CCR units: TT

MCLG: 0

Major sources in drinking water: Added to water during sewage/wastewater treatment.

Health effects language: 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.

Contaminant (units): Alachlor (ppb)

Traditional MCL in mg/ℓ: 0.002

To convert for CCR, multiply by: 1000

MCL in CCR units: 2

MCLG: 0

Major sources in drinking water: Runoff from herbicide used on row crops.

Health effects language: 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.

Contaminant (units): Atrazine (ppb)

Traditional MCL in mg/ℓ: 0.003

To convert for CCR, multiply by: 1000

MCL in CCR units: 3

MCLG: 3

Major sources in drinking water: Runoff from herbicide used on row crops.

Health effects language: 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.

Contaminant (units): Benzo(a)pyrene (PAH) (nanograms/ℓ)

Traditional MCL in mg/ℓ: 0.0002

To convert for CCR, multiply by: 1,000,000

MCL in CCR units: 200

MCLG: 0

Major sources in drinking water: Leaching from linings of water storage tanks and distribution lines.

Health effects language: 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.

Contaminant (units): Carbofuran (ppb)

Traditional MCL in mg/ℓ: 0.04

To convert for CCR, multiply by: 1000

MCL in CCR units: 40

MCLG: 40

Major sources in drinking water: Leaching of soil fumigant used on rice and alfalfa.

Health effects language: 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.

Contaminant (units): Chlordane (ppb)

Traditional MCL in mg/ℓ: 0.002

To convert for CCR, multiply by: 1000

MCL in CCR units: 2

MCLG: 0

Major sources in drinking water: Residue of banned termiticide.

Health effects language: 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.

Contaminant (units): Dalapon (ppb)

Traditional MCL in mg/ℓ: 0.2

To convert for CCR, multiply by: 1000

MCL in CCR units: 200

MCLG: 200

Major sources in drinking water: Runoff from herbicide used on rights of way.

Health effects language: Some people who drink water containing dalapon well in excess of the MCL over many years could experience minor kidney changes.

Contaminant (units): Di(2-ethylhexyl)adipate (ppb)

Traditional MCL in mg/ℓ: 0.4

To convert for CCR, multiply by: 1000

MCL in CCR units: 400

MCLG: 400

Major sources in drinking water: Discharge from chemical factories.

Health effects language: Some people who drink water containing di(2-ethylhexyl)adipate well in excess of the MCL over many years could experience toxic effects, such as weight loss, liver enlargement, or possible reproductive difficulties.

Contaminant (units): Di(2-ethylhexyl)phthalate (ppb)

Traditional MCL in mg/ℓ: 0.006

To convert for CCR, multiply by: 1000

MCL in CCR units: 6

MCLG: 0

Major sources in drinking water: Discharge from rubber and chemical factories.

Health effects language: Some people who drink water containing di(2-ethylhexyl)phthalate well in excess of the MCL over many years may have problems with their liver or experience reproductive difficulties, and they may have an increased risk of getting cancer.

Contaminant (units): Dibromochloropropane (DBCP) (ppt)

Traditional MCL in mg/ℓ: 0.0002

To convert for CCR, multiply by: 1,000,000

MCL in CCR units: 200

MCLG: 0

Major sources in drinking water: Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards.

Health effects language: 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.

Contaminant (units): Dinoseb (ppb)

Traditional MCL in mg/ℓ: 0.007

To convert for CCR, multiply by: 1000

MCL in CCR units: 7

MCLG: 7

Major sources in drinking water: Runoff from herbicide used on soybeans and vegetables.

Health effects language: Some people who drink water containing dinoseb well in excess of the MCL over many years could experience reproductive difficulties.

Contaminant (units): Diquat (ppb)

Traditional MCL in mg/ℓ: 0.02

To convert for CCR, multiply by: 1000

MCL in CCR units: 20

MCLG: 20

Major sources in drinking water: Runoff from herbicide use.

Health effects language: Some people who drink water containing diquat in excess of the MCL over many years could get cataracts.

Contaminant (units): Dioxin (2,3,7,8-TCDD) (ppq)

Traditional MCL in mg/ℓ: 0.00000003

To convert for CCR, multiply by: 1,000,000,000

MCL in CCR units: 30

MCLG: 0

Major sources in drinking water: Emissions from waste incineration and other combustion; discharge from chemical factories.

Health effects language: 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.

Contaminant (units): Endothall (ppb)

Traditional MCL in mg/ℓ: 0.1

To convert for CCR, multiply by: 1000

MCL in CCR units: 100

MCLG: 100

Major sources in drinking water: Runoff from herbicide use.

Health effects language: Some people who drink water containing endothall in excess of the MCL over many years could experience problems with their stomach or intestines.

Contaminant (units): Endrin (ppb)

Traditional MCL in mg/ℓ: 0.002

To convert for CCR, multiply by: 1000

MCL in CCR units: 2

MCLG: 2

Major sources in drinking water: Residue of banned insecticide.

Health effects language: Some people who drink water containing endrin in excess of the MCL over many years could experience liver problems.

Contaminant (units): Epichlorohydrin

Traditional MCL in mg/ℓ: TT

To convert for CCR, multiply by: –

MCL in CCR units: TT

MCLG: 0

Major sources in drinking water: Discharge from industrial chemical factories; an impurity of some water treatment chemicals.

Health effects language: 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.

Contaminant (units): Ethylene dibromide (ppt)

Traditional MCL in mg/ℓ: 0.00005

To convert for CCR, multiply by: 1,000,000

MCL in CCR units: 50

MCLG: 0

Major sources in drinking water: Discharge from petroleum refineries.

Health effects language: 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.

Contaminant (units): Glyphosate (ppb)

Traditional MCL in mg/ℓ: 0.7

To convert for CCR, multiply by: 1000

MCL in CCR units: 700

MCLG: 700

Major sources in drinking water: Runoff from herbicide use.

Health effects language: Some people who drink water containing glyphosate in excess of the MCL over many years could experience problems with their kidneys or reproductive difficulties.

Contaminant (units): Heptachlor (ppt)

Traditional MCL in mg/ℓ: 0.0004

To convert for CCR, multiply by: 1,000,000

MCL in CCR units: 400

MCLG: 0

Major sources in drinking water: Residue of banned pesticide.

Health effects language: 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.

Contaminant (units): Heptachlor epoxide (ppt)

Traditional MCL in mg/ℓ: 0.0002

To convert for CCR, multiply by: 1,000,000

MCL in CCR units: 200

MCLG: 0

Major sources in drinking water: Breakdown of heptachlor.

Health effects language: 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.

Contaminant (units): Hexachlorobenzene (ppb)

Traditional MCL in mg/ℓ: 0.001

To convert for CCR, multiply by: 1000

MCL in CCR units: 1

MCLG: 0

Major sources in drinking water: Discharge from metal refineries and agricultural chemical factories.

Health effects language: 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.

Contaminant (units): Hexachlorocyclopentadiene (ppb)

Traditional MCL in mg/ℓ: 0.05

To convert for CCR, multiply by: 1000

MCL in CCR units: 50

MCLG: 50

Major sources in drinking water: Discharge from chemical factories.

Health effects language: Some people who drink water containing hexachlorocyclopentadiene well in excess of the MCL over many years could experience problems with their kidneys or stomach.

Contaminant (units): Lindane (ppt)

Traditional MCL in mg/ℓ: 0.0002

To convert for CCR, multiply by: 1,000,000

MCL in CCR units: 200

MCLG: 200

Major sources in drinking water: Runoff/leaching from insecticide used on cattle, lumber, gardens.

Health effects language: Some people who drink water containing lindane in excess of the MCL over many years could experience problems with their kidneys or liver.

Contaminant (units): Methoxychlor (ppb)

Traditional MCL in mg/ℓ: 0.04

To convert for CCR, multiply by: 1000

MCL in CCR units: 40

MCLG: 40

Major sources in drinking water: Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock.

Health effects language: Some people who drink water containing methoxychlor in excess of the MCL over many years could experience reproductive difficulties.

Contaminant (units): Oxamyl (vydate) (ppb)

Traditional MCL in mg/ℓ: 0.2

To convert for CCR, multiply by: 1000

MCL in CCR units: 200

MCLG: 200

Major sources in drinking water: Runoff/leaching from insecticide used on apples, potatoes and tomatoes.

Health effects language: Some people who drink water containing oxamyl in excess of the MCL over many years could experience slight nervous system effects.

Contaminant (units): PCBs (polychlorinated biphenyls) (ppt)

Traditional MCL in mg/ℓ: 0.0005

To convert for CCR, multiply by: 1,000,000

MCL in CCR units: 500

MCLG: 0

Major sources in drinking water: Runoff from landfills; discharge of waste chemicals.

Health effects language: 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.

Contaminant (units): Pentachlorophenol (ppb)

Traditional MCL in mg/ℓ: 0.001

To convert for CCR, multiply by: 1000

MCL in CCR units: 1

MCLG: 0

Major sources in drinking water: Discharge from wood preserving factories.

Health effects language: 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.

Contaminant (units): Picloram (ppb)

Traditional MCL in mg/ℓ: 0.5

To convert for CCR, multiply by: 1000

MCL in CCR units: 500

MCLG: 500

Major sources in drinking water: Herbicide runoff.

Health effects language: Some people who drink water containing picloram in excess of the MCL over many years could experience problems with their liver.

Contaminant (units): Simazine (ppb)

Traditional MCL in mg/ℓ: 0.004

To convert for CCR, multiply by: 1000

MCL in CCR units: 4

MCLG: 4

Major sources in drinking water: Herbicide runoff.

Health effects language: Some people who drink water containing simazine in excess of the MCL over many years could experience problems with their blood.

Contaminant (units): Toxaphene (ppb)

Traditional MCL in mg/ℓ: 0.003

To convert for CCR, multiply by: 1000

MCL in CCR units: 3

MCLG: 0

Major sources in drinking water: Runoff/leaching from insecticide used on cotton and cattle.

Health effects language: 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

Contaminant (units): Benzene (ppb)

Traditional MCL in mg/ℓ: 0.005

To convert for CCR, multiply by: 1000

MCL in CCR units: 5

MCLG: 0

Major sources in drinking water: Discharge from factories; leaching from gas storage tanks and landfills.

Health effects language: 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.

Contaminant (units): Carbon tetrachloride (ppb)

Traditional MCL in mg/ℓ: 0.005

To convert for CCR, multiply by: 1000

MCL in CCR units: 5

MCLG: 0

Major sources in drinking water: Discharge from chemical plants and other industrial activities.

Health effects language: 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.

Contaminant (units): Chlorobenzene (ppb)

Traditional MCL in mg/ℓ: 0.1

To convert for CCR, multiply by: 1000

MCL in CCR units: 100

MCLG: 100

Major sources in drinking water: Discharge from chemical and agricultural chemical factories.

Health effects language: Some people who drink water containing chlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys.

Contaminant (units): o-Dichlorobenzene (ppb)

Traditional MCL in mg/ℓ: 0.6

To convert for CCR, multiply by: 1000

MCL in CCR units: 600

MCLG: 600

Major sources in drinking water: Discharge from industrial chemical factories.

Health effects language: 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.

Contaminant (units): p-Dichlorobenzene (ppb)

Traditional MCL in mg/ℓ: 0.075

To convert for CCR, multiply by: 1000

MCL in CCR units: 75

MCLG: 75

Major sources in drinking water: Discharge from industrial chemical factories.

Health effects language: 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.

Contaminant (units): 1,2-Dichloroethane (ppb)

Traditional MCL in mg/ℓ: 0.005

To convert for CCR, multiply by: 1000

MCL in CCR units: 5

MCLG: 0

Major sources in drinking water: Discharge from industrial chemical factories.

Health effects language: 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.

Contaminant (units): 1,1-Dichloroethylene (ppb)

Traditional MCL in mg/ℓ: 0.007

To convert for CCR, multiply by: 1000

MCL in CCR units: 7

MCLG: 7

Major sources in drinking water: Discharge from industrial chemical factories.

Health effects language: Some people who drink water containing 1,1-dichloroethylene in excess of the MCL over many years could experience problems with their liver.

Contaminant (units): cis-1,2-Dichloroethylene (ppb)

Traditional MCL in mg/ℓ: 0.07

To convert for CCR, multiply by: 1000

MCL in CCR units: 70

MCLG: 70

Major sources in drinking water: Discharge from industrial chemical factories.

Health effects language: Some people who drink water containing cis-1,2-dichloroethylene in excess of the MCL over many years could experience problems with their liver.

Contaminant (units): trans-1,2-Dichloroethylene (ppb)

Traditional MCL in mg/ℓ: 0.1

To convert for CCR, multiply by: 1000

MCL in CCR units: 100

MCLG: 100

Major sources in drinking water: Discharge from industrial chemical factories.

Health effects language: 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.

Contaminant (units): Dichloromethane (ppb)

Traditional MCL in mg/ℓ: 0.005

To convert for CCR, multiply by: 1000

MCL in CCR units: 5

MCLG: 0

Major sources in drinking water: Discharge from pharmaceutical and chemical factories.

Health effects language: 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.

Contaminant (units): 1,2-Dichloropropane (ppb)

Traditional MCL in mg/ℓ: 0.005

To convert for CCR, multiply by: 1000

MCL in CCR units: 5

MCLG: 0

Major sources in drinking water: Discharge from industrial chemical factories.

Health effects language: 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.

Contaminant (units): Ethylbenzene (ppb)

Traditional MCL in mg/ℓ: 0.7

To convert for CCR, multiply by: 1000

MCL in CCR units: 700

MCLG: 700

Major sources in drinking water: Discharge from petroleum refineries.

Health effects language: Some people who drink water containing ethylbenzene well in excess of the MCL over many years could experience problems with their liver or kidneys.

Contaminant (units): Haloacetic acids (HAA5) (ppb)

Traditional MCL in mg/ℓ: 0.060

To convert for CCR, multiply by: 1000

MCL in CCR units: 60

MCLG: N/A

Major sources in drinking water: Byproduct of drinking water disinfection.

Health effects language: Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

Contaminant (units): Styrene (ppb)

Traditional MCL in mg/ℓ: 0.1

To convert for CCR, multiply by: 1000

MCL in CCR units: 100

MCLG: 100

Major sources in drinking water: Discharge from rubber and plastic factories; leaching from landfills.

Health effects language: 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.

Contaminant (units): Tetrachloroethylene (ppb)

Traditional MCL in mg/ℓ: 0.005

To convert for CCR, multiply by: 1000

MCL in CCR units: 5

MCLG: 0

Major sources in drinking water: Discharge from factories and dry cleaners.

Health effects language: 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.

Contaminant (units): 1,2,4-Trichlorobenzene (ppb)

Traditional MCL in mg/ℓ: 0.07

To convert for CCR, multiply by: 1000

MCL in CCR units: 70

MCLG: 70

Major sources in drinking water: Discharge from textile-finishing factories.

Health effects language: 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): 1,1,1-Trichloroethane (ppb)

Traditional MCL in mg/ℓ: 0.2

To convert for CCR, multiply by: 1000

MCL in CCR units: 200

MCLG: 200

Major sources in drinking water: Discharge from metal degreasing sites and other factories.

Health effects language: 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.

Contaminant (units): 1,1,2-Trichloroethane (ppb)

Traditional MCL in mg/ℓ: 0.005

To convert for CCR, multiply by: 1000

MCL in CCR units: 5

MCLG: 3

Major sources in drinking water: Discharge from industrial chemical factories.

Health effects language: 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.

Contaminant (units): Trichloroethylene (ppb)

Traditional MCL in mg/ℓ: 0.005

To convert for CCR, multiply by: 1000

MCL in CCR units: 5

MCLG: 0

Major sources in drinking water: Discharge from metal degreasing sites and other factories.

Health effects language: 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.

Contaminant (units): TTHMs (total trihalomethanes) (ppb)

Traditional MCL in mg/ℓ: 0.10/0.080

To convert for CCR, multiply by: 1000

MCL in CCR units: 100/80

MCLG: N/A

Major sources in drinking water: Byproduct of drinking water disinfection.

Health effects language: 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 system, and may have an increased risk of getting cancer.

Contaminant (units): Toluene (ppm)

Traditional MCL in mg/ℓ: 1

To convert for CCR, multiply by: –

MCL in CCR units: 1

MCLG: 1

Major sources in drinking water: Discharge from petroleum factories.

Health effects language: 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.

Contaminant (units): Vinyl Chloride (ppb)

Traditional MCL in mg/ℓ: 0.002

To convert for CCR, multiply by: 1000

MCL in CCR units: 2

MCLG: 0

Major sources in drinking water: Leaching from PVC piping; discharge from plastics factories.

Health effects language: Some people who drink water containing vinyl chloride in excess of the MCL over many years may have an increased risk of getting cancer.

Contaminant (units): Xylenes (ppm)

Traditional MCL in mg/ℓ: 10

To convert for CCR, multiply by: –

MCL in CCR units: 10

MCLG: 10

Major sources in drinking water: Discharge from petroleum factories; discharge from chemical factories.

Health effects language: Some people who drink water containing xylenes in excess of the MCL over many years could experience damage to their nervous system.

Key

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| --- | --- |
| Abbreviation | Meaning |
| 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 |

BOARD NOTE: Derived from appendix A to subpart O to 40 CFR 141.

(Source: Amended at 44 Ill. Reg. 6996, effective April 17, 2020)