3745-81-12 **Maximum contaminant levels and best available technologies for organic contaminants.**

~~(A) Total trihalomethanes: the maximum contaminant level for total trihalomethanes of 0.10 milligram per liter applies to community public water systems that treat their water with any combination of chlorine, chloramines, chlorine dioxide and/or ozone. This level applies until January 1, 2002 to surface water systems which serve a population of ten thousand or more persons. This level applies until January 1, 2004 to ground water systems which serve a population of ten thousand or more persons. Compliance with the maximum contaminant level for total trihalomethanes is calculated according to paragraph (A) of rule 3745-81-24 of the Administrative Code.~~

~~(B)~~(A) The following maximum contaminant levels for total trihalomethanes and haloacetic acids (five) apply to community public water systems and nontransient noncommunity public water systems that ~~treat their water~~supply water treated with any combination of ~~-~~chlorine, chloramines, chorine dioxide or ozone. ~~These levels apply beginning January 1, 2002, to surface water systems which serve a population of ten thousand or more persons. These levels apply beginning January 1, 2004, to surface water systems serving fewer than ten thousand persons and ground water systems.~~ Compliance with the maximum contaminant levels of total trihalomethanes and haloacetic acids (five) is calculated according to paragraph (D) of rule 3745-81-24 of the Administrative Code. The director identifies the following as the best available technology (BAT), for achieving compliance with the maximum contaminant levels for organic disinfection byproducts identified in this ~~paragraph~~ table until December 31, 2011:

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Contaminant	MCL/mg/l	BAT
Total trihalomethanes	0.080	Enhanced coagulation or enhanced softening or GAC10, with chlorine as the primary and residual disinfectant
Haloacetic acids (five)	0.060	Enhanced coagulation or enhanced softening or GAC10, with chlorine as the primary and residual disinfectant.

(B) The director identifies the following as the best available technology (BAT), for achieving compliance with the maximum contaminant levels for organic disinfection byproducts identified in this table beginning January 1, 2012:

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Contaminant	MCL/mg/l	BAT
Total trihalomethanes	0.080	Enhanced coagulation or enhanced softening or GAC10; or nanofiltration with a molecular weight of < 1000 Daltons; or GAC20
Haloacetic acids (five)	0.060	Enhanced coagulation or enhanced softening or GAC10; or nanofiltration with a molecular weight of < 1000 Daltons; or GAC20

(C) The director identifies the following as the best technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for TTHM and HAA5 identified in this rule for consecutive systems and applies only to the disinfected water that consecutive systems buy or otherwise receive:

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Contaminant	MCL (mg/L)	BAT
Total trihalomethanes	0.080	Systems serving greater than or equal to 10,000: Improved distribution system and storage tank management to reduce time, plus the use of chloramines for disinfectant residual maintenance. Systems serving < 10,000: Improved distribution system and storage tank management to reduce residence time.
Haloacetic acids (five)	0.060	Systems serving greater than or equal to 10,000: Improved distribution system and storage tank management to reduce time, plus the use of chloramines for disinfectant residual maintenance. Systems serving < 10,000: Improved distribution system and storage tank

		management to reduce residence time.

~~(C) A public water system that is installing GAC or membrane technology to comply with the MCLs for TTHM and HAA5 may apply to the director for an extension of up to twenty-four months past January 1, 2002, but not beyond December 31, 2003. In granting this extension, the director shall set a schedule for compliance and may specify any interim measures that the public water system must take. Failure to meet the schedule or interim treatment requirements constitutes a violation of Ohio primary drinking water rules.~~

(D) The following maximum contaminant levels (MCLs) apply to community public water systems and nontransient ~~–~~noncommunity public ~~–~~water systems. The associated best available technologies (BATs), designated as GAC for granular activated carbon and PTA for packed-tower aeration, identify the best technology, treatment techniques, or other means available for achieving compliance with the stated maximum contaminant levels. The director may determine that a public water system shall apply best available technology in order to reduce the level of a contaminant to below its maximum contaminant level.

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Contaminant	CAS number	MCL milligrams per liter	BAT
Vinyl chloride	75-01-4	0.002	~~–~~PTA
Benzene	71-43-2	0.005	GAC PTA
Carbon tetrachloride	56-23-5	0.005	GAC PTA
p-Dichlorobenzene	106-46-7	0.075	GAC PTA
1,2-Dichloroethane	107-06-2	0.005	GAC PTA
1,1-Dichloroethylene	75-35-4	0.007	GAC PTA
Trichloroethylene	79-01-6	0.005	GAC PTA
1,1,1-Trichloroethane	71-55-6	0.2	GAC PTA
o-Dichlorobenzene	95-50-1	0.6	GAC PTA
cis-1,2-Dichloroethylene	156-59-2	0.07	GAC PTA
trans-1,2-Dichloroethylene	156-60-5	0.1	GAC PTA
1,2-Dichloropropane	78-87-5	0.005	GAC PTA
Dichloromethane	75-09-2	0.005	PTA
Ethylbenzene	100-41-4	0.7	GAC PTA
Monochlorobenzene	108-90-7	0.1	GAC PTA
Styrene	100-42-5	0.1	GAC PTA
Tetrachloroethylene	127-18-4	0.005	GAC PTA
Toluene	108-88-3	1	GAC PTA
1,2,4-Trichlorobenzene	120-82-1	0.07	GAC PTA
1,1,2-Trichloroethane	79-00-5	0.005	GAC PTA
Xylenes (total)	1330-20-7	10	~~–~~GAC PTA

(E) The following maximum contaminant levels apply to community public water systems and nontransient noncommunity water systems. The associated best available technologies (BATs), designated as GAC for granular activated carbon, PTA for packed-tower aeration, and OX for oxidation with chlorine or ozone, identify the best technology, treatment technique, or other means available for achieving compliance with the stated maximum contaminant levels. The director may determine that a public water system shall apply best available technology in order to reduce the level of a contaminant to below its maximum contaminant level.

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Contaminant	CAS number	MCL milligrams per liter	BAT
Alachlor	15972-60-8	0.002	GAC
Atrazine	1912-24-9	0.003	GAC
Benzo[a]pyrene	50-32-8	0.0002	GAC
Carbofuran	1563-66-2	0.04	GAC
Chlordane	57-74-9	0.002	GAC
2,4-D	94-75-7	0.07	GAC
Dalapon	75-99-0	0.2	–GAC
Dibromochloropropane (DBCP)	96-12-8	0.0002	GAC PTA
Di(2-ethylhexyl) adipate	103-23-1	0.4	GAC
Di(2-ethylhexyl) phthalate	117-81-7	0.006	GAC
Dinoseb	88-85-7	0.007	GAC
Diquat	85-00-7	0.02	–GAC
Endothall	145-73-3	0.1	GAC
Endrin	72-20-8	0.002	GAC
Ethylene dibromide (EDB)	106-93-4	0.00005	–GAC PTA
Glyphosate	1071-53-6	0.07	OX
Heptachlor	76-44-8	0.0004	GAC
Heptachlor epoxide	1024-57-3	0.0002	–GAC
Hexachlorobenzene	118-74-1	0.001	GAC
Hexachlorocyclopentadiene	77-47-4	0.05	GAC PTA
Lindane	58-89-9	0.0002	–GAC
Methoxychlor	72-43-5	0.04	GAC
Oxamyl (Vydate)	23135-22-0	0.2	GAC
Picloram	1918-02-1	0.5	GAC
Polychlorinated biphenyls (PCBs)	1336-36-3	0.0005	GAC
Pentachlorophenol	87-86-5	0.001	GAC
Simazine	122-34-9	0.004	GAC
2,3,7,8-TCDD (Dioxin)	1745-01-6	3×10^{-8}	GAC
Toxaphene	8001-35-2	0.003	–GAC
2,4,5-TP (Silvex)	93-72-1	0.05	GAC