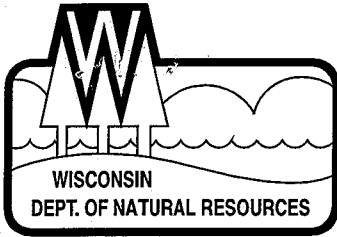


Clearinghouse Rule 99-108

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES



Tommy G. Thompson, Governor
George E. Meyer, Secretary

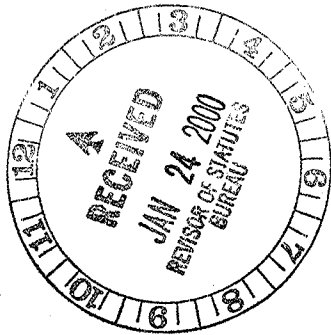
Box 7921
101 South Webster Street
Madison, Wisconsin 53707-7921
TELEPHONE 608-266-2621
FAX 608-267-3579
TDD 608-267-6897

STATE OF WISCONSIN)
) ss
DEPARTMENT OF NATURAL RESOURCES)

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, George E. Meyer, Secretary of the Department of Natural Resources and custodian of the official records of said Department, do hereby certify that the annexed copy of Natural Resources Board Order No. DG-27-99 was duly approved and adopted by this Department on October 27, 1999. I further certify that said copy has been compared by me with the original on file in this Department and that the same is a true copy thereof, and of the whole of such original.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the Department at the Natural Resources Building in the City of Madison, this 18th day of January, 2000



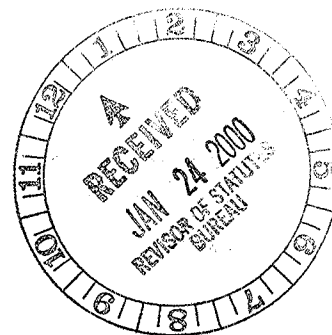
George E Meyer
George E. Meyer, Secretary

(SEAL)

99-108



ORDER OF THE STATE OF WISCONSIN
 NATURAL RESOURCES BOARD
 AMENDING, REPEALING AND
 RECREATING, AND CREATING RULES



.....
 The Wisconsin Natural Resources Board
 proposes an order to amend NR 140.10 Table 1
 and NR 140.28(2), relating to groundwater
 quality standards.

DG-27-99

Analysis prepared by the Department of Natural Resources

Statutory authority: ss. 281.12(1), 281.15 and 281.19(1), and s. 299.11,
 Stats., and ch. 160, Stats.

Statutes interpreted: ss. 281.12(1), 281.15 and 281.19(1), and s. 299.11,
 Stats., and ch. 160, Stats.

Chapter 160, Stats., requires the Department to develop numerical
 groundwater quality standards, consisting of enforcement standards and
 preventive action limits. Chapter NR 140, Wis. Adm. Code, establishes
 groundwater standards and creates a framework for implementation of the
 standards by the Department. The proposed amendments to ch. NR 140 would
 revise the standards for toluene and xylene. The proposed amendments also
 include provisions to clarify exemption criteria for health and welfare
 standard exceedances.

SECTION 1. NR 140.10, Table 1 is amended to read:

Table 1
 Public Health Groundwater Quality Standards

Substance ¹	Enforcement Standard (micrograms per liter - except as noted)	Preventive Action Limit (micrograms per liter - except as noted)
Acetone	1000	200
Alachlor	2	0.2
Aldicarb	10	2
Antimony	6	1.2
Anthracene	3000	600
Arsenic	50	5
Asbestos	7 million fibers per liter (MFL)	0.7 MFL
Atrazine, total chlorinated residues	3 ²	0.3 ²

Bacteria, Total Coliform	0 ³	0 ³
Barium	2 mg/l <u>milligrams/liter</u> (mg/l)	0.4 mg/l

Bentazon	300	60
Benzene	5	0.5
Benzo(b) fluoranthene	0.2	0.02
Benzo(a)pyrene	0.2	0.02
Beryllium	4	0.4
Boron	960	190

Note: Boron as a health standard will become effective on January 1, 2000. Boron as an indicator parameter in s. NR 140.20, Table 3, will be effective until December 31, 1999.

Bromodichloromethane	0.6	0.06
Bromoform	4.4	0.44
Bromomethane	10	1
Butylate	67	6.7
Cadmium	5	0.5
Carbaryl	960	192
Carbofuran	40	8
Carbon disulfide	1000	200
Carbon tetrachloride	5	0.5
Chloramben	150	30
Chlordane	2	0.2
Chloroethane	400	80
Chloroform	6	0.6
Chloromethane	3	0.3
Chromium	100	10
Chrysene	0.2	0.02
Cobalt	40	8

Copper	1300	130
Cyanazine	1	0.1
Cyanide	200	40
Dacthal	4 mg/l	0.8 mg/l
1,2-Dibromoethane (EDB)	0.055	0.005
Dibromochloromethane	60	6
1,2-Dibromo-3-chloro propane (DBCP)	0.2	0.02
Dibutyl phthalate	100	20
Dicamba	300	60
1,2-Dichlorobenzene	600	60
1,3-Dichlorobenzene	1250	125
1,4-Dichlorobenzene	75	15
Dichlorodifluoromethane	1000	200
1,1-Dichloroethane	850	85
1,2-Dichloroethane	5	0.5
1,1-Dichloroethylene	7	0.7
1,2-Dichloroethylene (cis)	70	7
1,2-Dichloroethylene (trans)	100	20
2,4-Dichlorophenoxy acetic Acid (2,4-D)	70	7
1,2-Dichloropropane	5	0.5
1,3-Dichloropropene (cis/trans)	0.2	0.02
Di (2-ethylhexyl) phthalate	6	0.6
Dimethoate	2	0.4
2,4-Dinitrotoluene	0.05	0.005
2,6-Dinitrotoluene	0.05	0.005
Dinoseb	7	1.4

Dioxin (2,3,7,8-TCDD)	0.00003	0.000003
Endrin	2	0.4
EPTC	250	50
Ethylbenzene	700	140
Ethylene glycol	7 mg/l	0.7 mg/l
Fluoranthene	400	80
Fluorene	400	80
Fluoride	4 mg/l	0.8 mg/l
Fluorotrichloromethane	3490	698
Formaldehyde	1000	100
Heptachlor	0.4	0.04
Heptachlor epoxide	0.2	0.02
Hexachlorobenzene	1	0.1
N-Hexane	600	120
Hydrogen sulfide	30	6
Lead	15	1.5
Lindane	0.2	0.02
Mercury	2	0.2
Methanol	5000	1000
Methoxychlor	40	4
Methylene chloride	5	0.5
Methyl ethyl ketone (MEK)	460	90
Methyl isobutyl ketone (MIBK)	500	50
Methyl tert-butyl ether (MTBE)	60	12
Metolachlor	15	1.5
Metribuzin	250	50
Monochlorobenzene	100	20

Naphthalene	40	8
Nickel	100	20
Nitrate (as N)	10 mg/l	2 mg/l
Nitrate + Nitrite(as N)	10 mg/l	2 mg/l
Nitrite (as N)	1 mg/l	0.2 mg/l
N-Nitrosodiphenylamine	7	0.7
Pentachlorophenol (PCP)	1	0.1
Phenol	6 mg/l	1.2 mg/l
Picloram	500	100
Polychlorinated biphenyls (PCBs)	0.03	0.003
Prometon	90	18
Pyrene	250	50
Pyridine	10	2
Selenium	50	10
Silver	50	10
Simazine	4	0.4
Styrene	100	10
1,1,1,2-Tetrachloro ethane	70	7
1,1,2,2-Tetrachloro ethane	0.2	0.02
Tetrachloroethylene	5	0.5
Tetrahydrofuran	50	10
Thallium	2	0.4
Toluene	343 <u>1 mg/l</u>	68.6 <u>0.2 mg/l</u>
Toxaphene	3	0.3
1,2,4-Trichlorobenzene	70	14
1,1,1-Trichloroethane	200	40
1,1,2-Trichloroethane	5	0.5

Trichloroethylene (TCE)	5	0.5
2,4,5-Trichlorophenoxy- propionic acid (2,4,5-TP)	50	5
1,2,3-Trichloropropane	60	12
Trifluralin	7.5	0.75
Trimethylbenzenes (1,2,4- and 1,3,5- combined)	480	96
Vanadium	30	6
Vinyl chloride	0.2	0.02
Xylene ⁴	620 <u>10 mg/l</u>	124 <u>1 mg/l</u>

¹ Appendix I contains Chemical Abstract Service (CAS) registry numbers, common synonyms and trade names for most substances listed in Table 1.

² Total chlorinated atrazine residues includes parent compound and the following metabolites of health concern: 2-chloro-4-amino-6-isopropylamino-s-triazine (formerly deethylatrazine), 2-chloro-4-amino-6-ethylamino-s-triazine (formerly deisopropylatrazine) and 2-chloro-4,6-diamino-s-triazine (formerly diaminoatrazine).

³ Total coliform bacteria may not be present in any 100 ml sample using either the membrane filter (MF) technique, the presence-absence (P-A) coliform test, the minimal medium ONPG-MUG (MMO-MUG) test or not present in any 10 ml portion of the 10-tube multiple tube fermentation (MTF) technique.

⁴ Xylene includes meta-, ortho-, and para-xylene combined. The preventive action limit has been set at a concentration that is intended to address taste and odor concerns associated with this substance.

SECTION 2. NR 140.28(2) is repealed and recreated to read:

NR 140.28(2) CRITERIA FOR GRANTING EXEMPTIONS WHERE THE BACKGROUND CONCENTRATION IS BELOW THE PREVENTIVE ACTION LIMIT. (a) The department may grant an exemption under this section to a facility, practice or activity which is regulated by the department in an area where the background concentration of nitrate or a substance of public welfare concern is below the preventive action limit if the facility, practice or activity is designed and implemented to achieve the lowest possible concentration for that substance which is technically and economically feasible and the

existing or anticipated increase in the concentration of that substance does not present a threat to public health or welfare.

(b) The department may grant an exemption under this section to a facility, practice or activity which is regulated by the department in an area where the background concentration of a substance of public health concern, other than nitrate, is below the preventive action limit for that substance if all of the following occur:

1. The measured or anticipated increase in the concentration of the substance will be minimized to the extent technically and economically feasible.

2. Compliance with the preventive action limit is either not technically or economically feasible.

3. The enforcement standard for that substance will not be attained or exceeded at the point of standards application.

4. Any existing or projected increase in the concentration of the substance above the background concentration does not present a threat to public health or welfare.

Note: An exemption may be considered under this subsection even if monitoring data indicates no detectable background concentration of the substance.

The foregoing rule was approved and adopted by the State of Wisconsin Natural Resources Board on October 27, 1999.

The rule shall take effect on the first day of the month following publication in the Wisconsin administrative register as provided in s. 227.22(2) (intro.), Stats.

Dated at Madison, Wisconsin

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

(SEAL)

By

January 18, 2000
George E. Meyer
George E. Meyer, Secretary



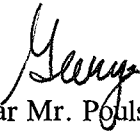
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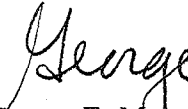
Mr. Gary L. Poulson
Assistant Revisor of Statutes
131 West Wilson Street - Suite 800
Madison, WI


Dear Mr. Poulson:

Enclosed are two copies, including one certified copy, of State of Wisconsin Natural Resources Board Order No. DG-27-99. These rules were reviewed by the Assembly Committee on Natural Resources and the Senate Committee on Agriculture, Environmental Resources and Campaign Finance Reform pursuant to s. 227.19, Stats. Summaries of the final regulatory flexibility analysis and comments of the legislative review committees are also enclosed.

You will note that this order takes effect following publication. Kindly publish it in the Administrative Code accordingly.

Sincerely,


George E. Meyer
Secretary

Enc.

