



CR 86-247

State of Wisconsin

DEPARTMENT OF NATURAL RESOURCES

Carroll D. Besadny  
Secretary

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STATE OF WISCONSIN )  
DEPARTMENT OF NATURAL RESOURCES )

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Bruce B. Braun, Deputy 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. WR-59-86 was duly approved and adopted by this Department on June 23, 1988. 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 here-  
unto set my hand and affixed the  
official seal of the Department at  
the Natural Resources Building in  
the City of Madison, this 31<sup>st</sup>  
day of August, 1988.

  
Bruce B. Braun, Deputy Secretary

(SEAL)



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

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WR-59-86

.....  
IN THE MATTER of amending ss. NR 140.05(7), .  
(17) and (18), 140.10 Table 1, 140.14(1)(intro.) .  
and (b), 140.22(1)(b), 140.24(5)(intro.) and .  
(6)(intro.), 140.28(1)(a) and (b), (3)(a), (b) .  
(intro.) and 2., (4)(a), (b)1. and (5)(b); .  
repealing and recreating s. NR 140.14(2); and .  
creating ss. NR 140.05(1m), 140.22(3)(c) note .  
and 140.27 pertaining to groundwater quality .  
standards. .  
.....

Analysis Prepared by the Department of Natural Resources

The rules are promulgated under the authority of ss. 144.025(2) and 227.11(2)(a) and ch. 160, Stats., and interpret s. 144.025(2) 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 add enforcement standards and preventive action limits for 14 additional substances and modify the enforcement standard and preventive action limit for cyanide and the preventive action limit for simazine, based on recommendations from the Department of Health and Social Services. Groundwater standards are proposed for: alachlor, atrazine, butylate, cyanazine, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,1-Dichloroethane, 1,2-Dichloroethylene (cis) and (trans), EPTC, ethylbenzene, fluorotrichloromethane, metolachlor and tetrahydrofuran. Language is also proposed to clarify the statistical procedures and clarify the rule.

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SECTION 1. NR 140.05(1m) is created to read:

NR 140.05(1m) "Alternative concentration limit" means the concentration of a substance in groundwater established by the department for a site to replace a preventive action limit or enforcement standard or both, from Table 1 or 2, when an exemption is granted in accordance with s. NR 140.28.

SECTION 2. NR 140.05(7), (17) and (18) are amended to read:

NR 140.05(7) "Enforcement standard" means a numerical value expressing the concentration of a substance in groundwater which is adopted under ss. s. 160.07 and ~~160.09~~, Stats., and ss. s. NR 140.10 or s. 160.09, Stats., and s. NR 140.12.

(17) "Preventive action limit" means a numerical value expressing the concentration of a substance in groundwater which is adopted under s. 160.15, Stats., and s. NR 140.10, 140.12, and or 140.20.

(18) "Property boundary" means the boundary of the total contiguous parcel of land owned or leased by a common owner or lessor, regardless of whether public or private roads run through the parcel.

SECTION 3. NR 140.10, Table 1 is amended to read:

Table 1

Public Health Groundwater Quality Standards

<u>Substance</u>	<u>Enforcement Standard (micrograms per liter- except as noted)</u>	<u>Preventive Action Limit (micrograms per liter- except as noted)</u>
<u>Alachlor</u>	<u>0.5</u>	<u>0.05</u>
{1} Aldicarb	10	2
{2} Arsenic	50	5
<u>Atrazine</u>	<u>3.5</u>	<u>0.35</u>
{3} Bacteria, Total Coliform	Less than one in 100 ml for membrane filter method or not present in any 10 ml portion by fermentation tube method for both preventive action limit and enforcement standard	
{4} Barium	1 milligram/liter (mg/l)	.2 mg/l

{5}	Benzene	.67	.067
	<u>Butylate</u>	<u>67</u>	<u>6.7</u>
{7}	Cadinium	10	1
{8}	Carbofuran	50	10
{9}	Chromium	50	5
	<u>Cyanazine</u>	<u>12.5</u>	<u>1.25</u>
{10}	Cyanide	<del>460</del> <u>200</u>	<del>92</del> <u>40</u>
{11}	1,2 Dibromoethane ( <u>EDB</u> )	.010	.001
{12}	1,2-Dibromo-3-chloropropane (DBCP)	.05	.005
	<u>1,2-Dichlorobenzene</u>	<u>1250</u>	<u>125</u>
	<u>1,3-Dichlorobenzene</u>	<u>1250</u>	<u>125</u>
{13}	p-Dichlorobenzene ( <u>1,4-Dichlorobenzene</u> )	750	150
	<u>1,1-Dichloroethane</u>	<u>850</u>	<u>85</u>
{14}	1,2-Dichloroethane	.5	.05
{15}	1,1-Dichloroethylene	.24	.024
	<u>1,2-Dichloroethylene (cis)</u>	<u>100</u>	<u>10</u>
	<u>1,2-Dichloroethylene (trans)</u>	<u>100</u>	<u>20</u>
{16}	2,4-Dichlorophenoxyacetic Acid	100	20
{17}	Dinoseb	13	2.6
{18}	Endrin	.2	.02
	<u>EPTC (Eptam)</u>	<u>250</u>	<u>50</u>
	<u>Ethylbenzene</u>	<u>1360</u>	<u>272</u>
{19}	Fluoride	2.2 mg/l	.44 mg/l

<u>Fluorotrichloromethane</u> <u>(Freon-11)</u>	<u>3490</u>	<u>698</u>
{20} Lead	50	5
{21} Lindane	.02	.002
{22} Mercury	2	.2
{23} Methoxychlor	100	20
{24} Methylene Chloride	150	15
<u>Metolachlor</u>	<u>15</u>	<u>1.5</u>
{25} Nitrate + Nitrite (as N)	10 mg/l	2 mg/l
{27} Selenium	10	1
{28} Silver	50	10
{29} Simazine	2.15 mg/l	<del>43</del> <u>.215</u> mg/l
{30} Tetrachloroethylene	1	.1
<u>Tetrahydrofuran</u>	<u>50</u>	<u>10</u>
{31} Toluene	343	68.6
{32} Toxaphene	.0007	.00007
{33} 1,1,1-Trichloroethane	200	40
{34} 1,1,2-Trichloroethane	.6	.06
{35} Trichloroethylene	1.8	.18
{36} 2,4,5-Trichlorophenoxy- propionic Acid	10	2
{38} Vinyl Chloride	.015	.0015
{39} Xylene	620	124

SECTION 4. NR 140.14(1) (intro.) and (b) are amended to read:

NR 140.14(1) (intro.) If a preventive action limit or an enforcement standard for a substance listed in Table 1 or 2, an alternative concentration limit issued in accordance with s. NR 140.28 or a preventive action limit for an indicator parameter established according to s. NR 140.20(2) is attained or exceeded at a point of standards application:

(b) The regulatory agency shall require a remedial response in accordance with the rules promulgated under s. 160.21, Stats. No remedial response shall be required if it is demonstrated to the satisfaction of the appropriate regulatory agency that a scientifically valid determination cannot be made that the preventive action limit or enforcement standard for a substance in Table 1 or 2 has been attained or exceeded based on consideration of sampling procedures or laboratory precision and accuracy, using statistical procedures specified in sub. (2).

SECTION 5. NR 140.14(2) is repealed and recreated to read:

NR 140.14(2) The regulatory agency shall use one or more of the following statistical procedures to determine if a preventive action limit or an enforcement standard for a substance in Table 1 or 2 is attained or exceeded or if a change in the concentration of the substance has occurred. A significance level of 0.05 shall be used for all tests.

- (a) Student t-test;
- (b) Temporal or spatial trend analysis; or
- (c) Other valid statistical analyses which are appropriate for the data being considered.

SECTION 6. NR 140.22(1)(b) is amended to read:

NR 140.22(1)(b) Any point ~~at or~~ beyond the boundary of the property on which the facility, practice or activity is located; and

SECTION 7. The following note is added after NR 140.22(3)(c):

Note: The boundary beyond which the enforcement standards apply is the closer of the property boundary or the design management zone boundary to the waste boundary for the facility, practice or activity.

SECTION 8. NR 140.24(5) (intro.) and (6) (intro.) are amended to read:

NR 140.24(5) (intro.) The department may determine that no ~~remedial action-to-restore-groundwater-quality~~ response is necessary when:

(6) (intro.) The department may not impose a prohibition on ~~the facility,~~ a practice or activity or require closure of a facility which produces the substance unless the department:

SECTION 9. NR 140.27 is created to read:

NR 140.27 (title) RESPONSES WHEN AN ENFORCEMENT STANDARD IS ATTAINED OR EXCEEDED AT A LOCATION OTHER THAN A POINT OF STANDARDS APPLICATION. If the concentration of a substance in groundwater attains or exceeds an enforcement standard at a location other than a point of standards application for an enforcement standard, s. NR 140.24 shall apply.

SECTION 10. NR 140.28(1)(a) and (b), (3)(a), (b)(intro.) and (b)2., (4)(a) and (b)1. and (5)(b) are amended to read:

NR 140.28(1)(a) The department may not approve a proposed facility, practice or activity at a location where a preventive action limit or enforcement standard adopted under s. NR 140.10 or 140.12 has been attained or exceeded unless an exemption has been granted under this section.

(b) Remedial action is required under s. NR 140.24 or 140.26 when a preventive action limit or enforcement standard has been attained or exceeded at a point of standards application unless an exemption has been granted under this section.

(3)(a) The department may grant an exemption under this section to allow a facility, practice or activity which is regulated by the department ~~to be constructed or operated~~ in an area where the background concentration of nitrate or a substance of public welfare concern attains or exceeds the preventive action limit if the facility, practice or activity is designed to achieve the lowest possible concentration for that substance which is technically and economically feasible and the ~~present and~~ existing or anticipated increase in the concentration of the substance does not present a threat to public health or welfare.

(b) (intro.) The department may grant an exemption under this section to allow a facility, practice or activity which is regulated by the department ~~to be constructed or operated~~ in an area where the background concentration of a substance of a public health concern, other than nitrate, attains or exceeds a preventive action limit for that substance:

2. If the background concentration of the substance does not exceed the enforcement standard for that substance, the facility, practice or activity has not caused and will not cause the concentration of the substance to exceed the enforcement standard for that substance at a point of standards application and the facility, practice or activity is designed to achieve the lowest possible concentration of that substance which is technically and economically feasible.

(4)(a) The department may grant an exemption under this section to allow a facility, practice or activity which is regulated by the department ~~to be constructed or operated~~ in an area where the background concentration of nitrate or a substance of public welfare concern attains or exceeds enforcement standard if the facility, practice or activity is designed to achieve the lowest possible concentration for that substance which is technically and economically feasible and the ~~present and~~ existing or anticipated increase in the concentration of the substance does not present a threat to public health or welfare.

(b)1. The department may grant an exemption under this section to allow a facility, practice or activity which is regulated by the department ~~to be constructed or operated~~ in an area where the background concentration of a substance of public health concern, other than nitrate, attains or exceeds the enforcement standard for that substance if:

(5)(b) The terms and conditions of the exemption, which may include an alternative concentration limit, under which the department may seek remedial action under s. NR 140.24 or 140.26 relating to the substance; and

The foregoing rules were approved and adopted by the State of Wisconsin Natural Resources Board on June 23, 1988.

The rules 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 August 30, 1988

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

By Carroll D. Besadny  
Carroll D. Besadny, Secretary

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5/26/88