CR 94-181

WISCONSIN
DEPT. OF NATURAL RESOURCES
George E. Meyer
Secretary

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

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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. WR-19-94 was duly approved and adopted by this Department on March 23, 1995. 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.

RECEIVED JUN 15 1995 REVISOR OF STATUTES BUREAU

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 8th day of June, 1995.

George E. Meyer

George E. Meyer, Secretary

(SEAL)

9-1-95

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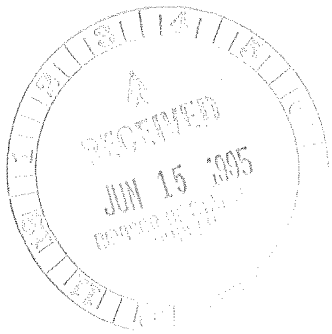
ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD
RENUMBERING, RENUMBERING AND AMENDING, AMENDING, REPEALING AND RECREATING AND CREATING RULES



IN THE MATTER of renumbering NR 140.28(5); renumbering and amending NR 140.14(3)(c); amending NR 140.10 Table 1, 140.24(1)(a) and (5)(intro.), 140.26(1)(a) and 149.03(15), (16), and (18)Note, 149.11(5) and 149.14(3)(d) and (h); repealing and recreating NR 140.05(12) and (13) and 140.14(3)(intro.) and (a) and (b); and creating NR 140.05(1s), (10e), (10s) and (20k), 140.16(4), 140.28(5), and NR 140 Appendix I relating to groundwater quality standards.

WR-19-94

Analysis Prepared by the Department of Natural Resources

Statutory authority: ss. 144.025(2), 144.95, 160.03, 160.07(5), 160.09(3), 160.15, 160.19, 160.21 and 227.11(2)(a), Stats.

Statutes interpreted: ss. 144.025(2), 144.95, 160.001, 160.05, 160.07, 160.09, 160.11, 160.13, 160.15, 160.19, 160.21, 160.23, 160.25 and 160.29, 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 13 additional substances and modify the enforcement standard and preventive action limit for 10 substances based on recommendations from the Department of Health and Social Services. Groundwater standards are proposed for antimony, beryllium, bromomethane, chloromethane, dacthal, 1,3-dichloropropene (cis/trans), fluorene, hexachlorobenzene, nickel, picloram, 1,1,2,2-tetrachloroethane, thallium, and 1,2,4-trichlorobenzene. Revised standards are proposed for benzo(a)pyrene, bromodichloromethane, dibromochloromethane, di(2-ethylhexyl) phthalate, dinoseb, dioxins, endrin, methylene chloride (dichloromethane), simazine, and 1,2,2-trichloroethane. Language is proposed to clarify the evaluation and response procedures of ch. NR 140 and laboratory data evaluation in chs. NR 140 and 149.

SECTION 1. NR 140.05 (1s), (10e) and (10s) are created to read:

NR 140.05 (1s) "Approval" means written acceptance by the department of a plan, report or other document that has been submitted to the department for review.

(10e) "Infiltration" means the underground emplacement of substances or remedial material, or both, into an excavation that is wider than deep so as to percolate or move through unsaturated material to groundwater.

(10s) "Injection" means the underground emplacement of substances or remedial material, or both, into a borehole or other excavation that is deeper than wide so as to percolate or move through unsaturated material to groundwater or to enter groundwater directly.

SECTION 2. NR 140.05 (12) and (13) are repealed and recreated to read:

NR 140.05 (12) "Limit of detection" means the lowest concentration level that can be determined to be statistically different from a blank.

(13) "Limit of quantitation" means the level above which quantitative results may be obtained with a specified degree of confidence.

Note: The limit of quantitation is 10/3 or 3.333 times the limit of detection.

SECTION 3. NR 140.05 (20k) is created to read:

NR 140. 05 (20k) "Remedial material" means any solid, liquid, semi-solid or gaseous material, either naturally occurring or manmade, in its original form or as a metabolite or degradation product, or naturally occurring non-pathogenic biological organisms which have not undergone human induced genetic alteration, which enhances the restoration of soil or groundwater quality, or both.

SECTION 4. NR 140.10, Table 1 is amended to read:

Table 1

Public Health Groundwater Quality Standards

Substance[2]	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
Arsenic	50	5
Asbestos	7 million fibers per liter (MFL)	0.7 MFL
Atrazine, total chlorinated residue	3[1]	.3[1]
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~~ 0[3]	0[3]
Barium	2 milligrams/liter (mg/l)	.4 mg/l
Benzene	5	0.5
Benzo(a)pyrene	~~0.003~~ 0.2	~~0.0003~~ 0.02
Beryllium	4	0.4
Bromodichloromethane	~~179~~ 0.6	~~36~~ 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 Tetrachloride	5	.5
Chloramben	150	30
Chlordane	2	0.2
Chloroethane ~~(Ethyl chloride)~~	400	80
Chloroform	6	.6
Chloromethane	3	0.3
Chromium	100	10
Copper	1300	130
Cyanazine	12.5	1.25
Cyanide	200	40
Dacthal	4 mg/l	0.8 mg/l
Dibromochloromethane ~~(Chlorodibromomethane)~~	~~215~~ 60	~~43~~ 6
1,2-Dibromoethane (EDB) ~~, ethylene dibromide, dibromoethane)~~	0.05	0.005
1,2-Dibromo-3-chloropropane (DBCP) ~~, dibromochloropropane)~~	0.2	0.02
Dicamba	300	60
Dichlorodifluoromethane ~~(Freon 12)~~	1000	200
1,2-Dichlorobenzene ~~(O-dichlorobenzene)~~	600	60
1,3-Dichlorobenzene ~~(M-dichlorobenzene)~~	1250	125
1,4-Dichlorobenzene ~~(p-Dichlorobenzene)~~	75	15
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-Dichlorophenoxyacetic 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 ~~(Bis(2-ethylhexyl) phthalate)~~	~~3~~ 6	~~0.3~~ 0.6
Dimethoate	2	.4
2,4-Dinitrotoluene	0.05	0.005
2,6-Dinitrotoluene	0.05	0.005
Dinoseb	~~13~~ 7	~~2.6~~ 1.4
Dioxin (2,3,7,8-TCDD)	~~.00000022~~ 0.00003	~~.000000022~~ 0.000003
Endrin	~~.2~~ 2	~~.02~~ 0.4
EPTC ~~(Eptam)~~	250	50
Ethylbenzene	700	140
Ethylene glycol	7 mg/l	0.7 mg/l
Fluorene	400	80
Fluoride	4 mg/l	0.8 mg/l
Fluorotrichloromethane ~~(Freon 11, trichlorofluoromethane)~~	3490	698
Formaldehyde	1000	100
Heptachlor	0.4	0.04
Heptachlor epoxide	0.2	0.02
Hexachlorobenzene	1	0.1
Lead	15	1.5
Lindane	0.2	0.02
Mercury	2	0.2
Methoxychlor	40	4

Methylene Chloride ~~(Dichloromethane)~~	~~150~~ 5	~~15~~ 0.5
Methyl ethyl ketone (MEK)	460	90
Methyl isobutyl ketone (MIBK) ~~, 4-methyl-2-pentanone, isopropylacetone)~~	500	50
Methyl tert-butyl ether (MTBE) ~~, 2-methoxy-2-methylpropane)~~	60	12
Metolachlor	15	1.5
Metribuzin	250	50
Monochlorobenzene ~~(Chlorobenzene)~~	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
Pentachlorophenol (PCP)	1	0.1
Polychlorinated biphenyls (PCBs)	0.03	0.003
Phenol	6 mg/l	1.2 mg/l
Picloram	500	100
Selenium	50	10
Silver	50	10
Simazine	~~1.7~~ 4	~~0.17~~ 0.4
Styrene ~~(Ethenylbenzene)~~	100	10
1,1,2,2-Tetrachloroethane	0.2	0.02
Tetrachloroethylene ~~(Perchloroethylene)~~	5	0.5
Tetrahydrofuran	50	10

Thallium	2	0.4
Toluene	343	68.6
Toxaphene	3	0.3
1,2,4-Trichlorobenzene	70	14
1,1,1-Trichloroethane	200	40
1,1,2-Trichloroethane	~~.6~~ 5	~~.06~~ 0.5
Trichloroethylene (TCE)	5	0.5
2,4,5-Trichlorophenoxy-propionic Acid (2,4,5-TP) ~~, silvex)~~	50	5
Trifluralin	7.5	.75
Vinyl Chloride	.2	0.02
Xylene[4]	620	124

[1]Total chlorinated atrazine residue includes parent compound and the following metabolites of health concern: deethylatrazine, deisopropylatrazine and diaminoatrazine.

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

[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.

SECTION 5. NR 140.14 (3)(intro.), (a) and (b) are repealed and recreated to read:

NR 140.14 (3)(intro.) In addition to sub. (2), the following applies when a preventive action limit or enforcement standard is equal to or less than the limit of quantitation:

(a) If a substance is not detected in a sample, the regulatory agency may not consider the preventive action limit or enforcement standard to have been attained or exceeded.

(b) If the preventive action limit or enforcement standard is less than the limit of detection, and the concentration of a substance is reported between the limit of detection and the limit of quantitation, the regulatory agency shall consider the preventive action limit or enforcement standard to be attained or exceeded only if:

1. The substance has been analytically confirmed to be present in the same sample using an equivalently sensitive analytical method or the same analytical method, and

2. The substance has been statistically confirmed to be present above the preventive action limit or enforcement standard, determined by an appropriate statistical test with sufficient samples at a significance level of 0.05.

(c) If the preventive action limit or enforcement standard is between the limit of detection and the limit of quantitation, the regulatory agency shall consider the preventive action limit or enforcement standard to be attained or exceeded if the concentration of a substance is reported at or above the limit of quantitation.

SECTION 6. NR 140.14 (3)(c) is renumbered NR 140.16(5) and amended to read:

140.16

NR ~~140.14~~(5) The owner or operator of the facility, practice or activity shall report the limit of detection and the limit of quantitation with the sample results ~~when requested by the regulatory agency~~. If a substance is detected below the limit of quantitation, the owner or operator shall report the detected value with the appropriate qualifier to the regulatory agency.

SECTION 7. NR 140.16 (4) is created to read:

NR 140.16 (4) The department may reject groundwater quality data that does not meet the requirements of the approved or designated analytical methods.

SECTION 8. NR 140.24 (1)(a) and (5)(intro.) are amended to read:

NR 140.24 (1)(a) The owner or operator of the facility, practice or activity shall notify the department in writing when monitoring data is submitted that a preventive action limit has been attained or exceeded in accordance with any deadlines in applicable statutes, rules, permits or plan approvals. Where no deadlines are imposed, the owner or operator shall notify the department as soon as practical after the results are received. When the results of any private well sampling exceed a preventive action limit, the owner or operator of the facility, practice or activity shall notify the department as soon as practical but no more than 10 days after the results are received. The notification shall provide a preliminary analysis of the cause and significance of the concentration.

(5)(intro.) NO ACTION RESPONSE CRITERIA ~~The~~ For facilities, practices and activities with a design management zone specified in s. NR 140.22(3) Table 4, the department may determine

that no response is necessary and that an exemption under s. NR 140.28 is not required when either of the following conditions is met:

SECTION 9. NR 140.26 (1)(a) is amended to read:

NR 140.26 (1)(a) The owner or operator of the facility, practice or activity shall notify the department in writing when monitoring data is submitted that an enforcement standard has been attained or exceeded in accordance with any deadlines in applicable statutes, rules, permits or plan approvals. Where no deadlines are imposed, the owner or operator shall notify the department as soon as practical after the results are received. When the results of any private well sampling exceed an enforcement standard or preventive action limit, the owner or operator of the facility, practice or activity shall notify the department as soon as practical but no more than 10 days after the results are received. The notification shall provide a preliminary analysis of the cause and significance of the concentration.

SECTION 10. NR 140.28 (5) is renumbered NR 140.28 (6).

SECTION 11. NR 140.28 (5) is created to read:

NR 140.28 (5) CRITERIA FOR GRANTING A TEMPORARY EXEMPTION WHERE INFILTRATION OR INJECTION IS UTILIZED FOR A REMEDIAL ACTION. (a) General. In lieu of an exemption granted under subs. (2) to (4), the department may grant a temporary exemption under this subsection to an owner or operator of a proposed or existing facility, practice or activity when a preventive action limit or enforcement standard may be attained or exceeded at a point of standards application. This exemption applies to the owner or operator of a facility, practice or activity that is undertaking a remedial action that: includes the infiltration or injection of contaminated groundwater or remedial material, has been approved by the department, and will comply with the applicable response objectives under s. NR 140.24 or 140.26 within a reasonable period of time. The owner or operator of the facility, practice or activity may submit a temporary exemption request to the department at the same time or after the department has approved the remedial action.

(b) Exemption request. The owner or operator of the facility, practice or activity shall submit a request for a temporary exemption to the department. As part of the request, the applicant shall indicate how the exemption prerequisites under par. (c) and applicable remedial design, operational and monitoring criteria under par. (d) will be met.

Note: For most remedial actions, a microcosm or treatability study, or other bench scale or pilot scale study will be required by the department prior to consideration of an exemption under this section.

(c) Exemption prerequisites. As part of the temporary exemption request, the owner or operator shall demonstrate to the satisfaction of the department that all of the following requirements will be met:

1. The remedial action for restoring contaminated soil or groundwater, and any infiltrated or injected contaminated water and remedial material, shall achieve the applicable response objectives required by s. NR 140.24 (2) or 140.26 (2) within a reasonable period of time.

2. The type, concentration and volume of substances or remedial material to be infiltrated or injected shall be minimized to the extent that is necessary for restoration of the contaminated soil or groundwater and be approved by the department prior to use.

3. Any infiltration or injection of contaminated water or remedial material into soil or groundwater will not significantly increase the threat to public health or welfare.

4. No uncontaminated or contaminated water, substance or remedial material will be infiltrated or injected into an area where a floating non-aqueous phase liquid is present in the contaminated soil or groundwater.

5. There will be no expansion of soil or groundwater contamination, or migration of any infiltrated or injected contaminated water or remedial material, beyond the edges of previously contaminated areas, except that infiltration or injection into previously uncontaminated areas may be allowed if the department determines that expansion into adjacent, previously uncontaminated areas is necessary for the restoration of the contaminated soil or groundwater, and the requirements of subd. 1 will be met.

6. All necessary federal, state and local licenses, permits and other approvals are obtained and all applicable environmental protection requirements will be complied with.

Note: The issuance of a wastewater discharge permit by the department is required prior to the infiltration or injection of substances or remedial material into unsaturated soil or groundwater. A wastewater discharge permit establishes the effluent or injection limits for substances or remedial material which may be infiltrated or injected into unsaturated soil or groundwater. A temporary exemption granted under this subsection applies to substances or remedial material which may enter groundwater or may be detected at a point of standards applications; it does not apply to substances or remedial material infiltrated or injected into unsaturated soil.

(d) Remedial action design, operation and monitoring criteria. In addition to providing information on how the requirements under par. (c) will be met, the application shall specify the following information where applicable:

1. The remedial action design, operation and soil and groundwater monitoring procedures to insure compliance with the requirements under par. (c) and applicable criteria under this paragraph.

2. The level of pre-treatment for contaminated groundwater prior to reinfiltration or reinjection.

3. The types and concentrations of substances or remedial material being proposed for infiltration or injection.

4. The volume and rate of infiltration or injection of contaminated groundwater or remedial material.

5. The location where the contaminated groundwater or remedial material will be infiltrated or injected.

(e) Granting an exemption. The department may only grant a temporary exemption under this subsection at the same time or after the department has approved the remedial action. When the department grants an exemption under this subsection, it shall follow the exemption procedures included in sub. (6) and shall require the owner or operator of the facility, practice or activity to comply with the requirements and criteria in pars. (c) and (d). The temporary exemption shall also include:

1. The expiration date of the temporary exemption. The expiration date shall be selected to achieve the applicable response objectives required by s. NR 140.24 (2) or 140.26 (2) within a reasonable period of time, not to exceed 5 years from the effective date of the exemption. The

temporary exemption may be reissued following a department review of information documenting the performance of the remedial action and a successful demonstration that reissuance of the exemption is necessary to achieve the response objectives required by s. NR 140.24 (2) or 140.26 (2).

2. Any other conditions or requirements the department determines are necessary relating to the temporary exemption.

(f) Responses to exemption violations. If the department determines that the conditions or requirements specified in the temporary exemption are not being met, the department may:

1. Require that the owner or operator of the facility, practice or activity revise the remedial action design, operation or monitoring procedures in accordance with par. (d). All revisions shall comply with the requirements established under pars. (c) and (e) and may require approval from the department prior to implementation.

2. Revoke the exemption and require implementation of an alternate remedial action to restore soil or groundwater quality.

SECTION 12. Appendix I is created to read:

WISCONSIN ADMINISTRATIVE CODE

APPENDIX I TO TABLE 1 — PUBLIC HEALTH GROUNDWATER QUALITY STANDARDS

Substance	CAS RN[1]	Common synonyms/*Trade name*[2]
Acetone	67-64-1	*Propanone*
Alachlor	15972-60-8	*Lasso*
Aldicarb	116-06-3	*Temik*
Asbestos	12001-29-5	
Benzene	71-43-2	
Benzo(a)pyrene	50-32-8	
Bromodichloromethane	75-27-4	Dichlorobromomethane
Bromoform	75-25-2	Tribromomethane
Bromomethane	74-83-9	Methyl bromide
Butylate	2008-41-5	
Carbaryl	63-25-2	*Sevin*
Carbofuran	1563-66-2	*Furadan*
Carbon tetrachloride	56-23-5	
Chloramben	133-90-4	
Chlordane	57-74-9	
Chloroethane	75-00-3	Ethyl chloride
Chloroform	67-66-3	Trichloromethane
Chloromethane	74-87-3	Methyl chloride
Cyanazine	21725-46-2	
Cyanide	57-12-5	
Dacthal	1861-32-1	
Dibromochloromethane	124-48-1	Chlorodibromomethane

1,2-Dibromo-3-chloropropane	96-12-8	DBCP, Dibromochloropropane
1,2-Dibromoethane	106-93-4	EDB, Ethylene dibromide, Dibromoethane
Dicamba	1918-00-9	*Banvel*
1,2-Dichlorobenzene	95-50-1	o-Dichlorobenzene
1,3-Dichlorobenzene	541-73-1	m-Dichlorobenzene
1,4-Dichlorobenzene	106-46-7	p-Dichlorobenzene
Dichlorodifluoromethane	75-71-8	*Freon 12*
1,1-Dichloroethane	75-34-3	
1,2-Dichloroethane	107-06-2	DCE, Ethylene dichloride
1,1-Dichloroethylene	75-35-4	1,1-DCE, 1,1-Dichloroethene
1,2-Dichloroethylene (cis)	156-59-2	cis-Dichloroethylene
1,2-Dichloroethylene (trans)	156-60-5	trans-1,2-Dichloroethylene
2,4-Dichlorophenoxyacetic acid	94-75-7	2,4-D
1,2-Dichloropropane	78-87-5	Propylene dichloride
1,3-Dichloropropene (cis/trans)[3]		*Telone*
Di(2-ethylhexyl) phthalate	117-81-7	DEHP, Bis(2-ethylhexyl) phthalate
Dimethoate	60-51-5	
2,4-Dinitrotoluene	121-14-2	2,4-DNT
2,6-Dinitrotoluene	606-20-2	2,6-DNT
Dinoseb	88-85-7	
Dioxins	1746-01-6	2,3,7,8-TCDD
Endrin	72-20-8	
EPTC	759-94-4	*Eptam, Eradicane*
Ethylbenzene	100-41-4	
Ethylene glycol	107-21-1	

Fluorene	86-73-7	
Fluoride	16984-48-8	
Fluorotrichloromethane	75-69-4	*Freon 11*, Trichloro-fluoromethane
Formaldehyde	50-00-0	
Heptachlor	76-44-8	
Heptachlor epoxide	1024-57-3	
Hexachlorobenzene	118-74-1	Perchlorobenzene, *Granox*
Lindane	58-89-9	
Mercury	7439-97-6	
Methoxychlor	72-43-5	
Methylene chloride	75-09-2	Dichloromethane
Methyl ethyl ketone	78-93-3	MEK, 2-Butanone
Methyl isobutyl ketone	108-10-1	MIBK, 4-Methyl-2-pentanone, Isopropylacetone, *Hexone*
Methyl tert-butyl ether	1634-04-4	MTBE, 2-Methoxy-2-methyl-propane, tert-Butyl methyl ether
Metolachlor	51218-45-2	*Dual*
Metribuzin	21087-64-9	*Sencor, Lexone*
Monochlorobenzene	108-90-7	Chlorobenzene
Naphthalene	91-20-3	
Pentachlorophenol	87-86-5	PCP
Phenol	108-95-2	
Picloram	1918-02-1	*Tordon*
Polychlorinated biphenyls[4]		PCBs
Simazine	122-34-9	*Princep*
Styrene	100-42-5	Ethenylbenzene
1,1,2,2-Tetrachloroethane	79-34-5	TCA

Tetrachloroethylene	127-18-4	Perchloroethylene
Tetrahydrofuran	109-99-9	
Toluene	108-88-3	
Toxaphene	8001-35-2	
1,2,4-Trichlorobenzene	120-82-1	
1,1,1-Trichloroethane	71-55-6	Methyl chloroform
1,1,2-Trichloroethane	79-00-5	
Trichloroethylene	79-01-6	TCE
2,4,5-Trichlorophenoxy-propionic Acid	93-72-1	2,4,5-TP, *Silvex*
Trifluralin	1582-09-8	*Treflan*
Vinyl Chloride	75-01-4	
Xylene[5]		

[1]Chemical Abstracts Service (CAS) registry numbers are unique numbers assigned to a chemical substance. The CAS registry numbers were published by the U. S. Environmental Protection Agency in 40 CFR Part 264, Appendix IV.

[2]Common synonyms include those widely used in government regulations, scientific publications, commerce and the general public. A trade name, also known as the proprietary name, is the specific, registered name given by a manufacturer to a product. Trade names are listed in *italics*. Common synonyms and trade names should be cross-referenced with the CAS registry number to ensure the correct substance is identified.

[3]This is a combined chemical substance which includes cis 1,3-Dichloropropene (CAS RN 10061-01-5) and trans 1,3-Dichloropropene (CAS RN 10061-02-6).

[4]Polychlorinated biphenyls (CAS RN 1336-36-3); this category contains congener chemicals (same molecular composition, different molecular structure and formula), including constituents of Aroclor-1016 (CAS RN12674-11-2), Aroclor-1221 (CAS RN 11104-28-2), Aroclor-1232 (CAS RN 11141-16-5), Aroclor-1242 (CAS RN 53469-21-9), Aroclor-1248 (CAS RN 12672-29-6), Aroclor-1254 (CAS RN 11097-69-1), and Aroclor-1260 (CAS RN 11096-82-5).

[5]Xylene (CAS RN 1330-20-7) refers to a mixture of three isomers, meta-xylene (CAS RN 108-38-3), ortho-xylene (CAS RN 95-47-6), and para-xylene (CAS RN 106-42-3).

SECTION 13. NR 149.03 (15), (16), and (18) Note are amended to read:

NR 149.03 (15) "Limit of detection" means the lowest concentration level that can be determined to be ~~significantly~~ statistically different from a blank.

(16) "Limit of quantitation" means the level above which quantitative results may be obtained with a specified degree of confidence.

Note: The limit of quantitation is 10/3 or 3.333 times the limit of detection.

(18) **Note:** When analyzing samples which are other than aqueous matrices the use of a matrix-matched method ~~may be~~ is advisable. ~~The matrix blank may not contain the analyte above the level of detection.~~

SECTION 14. NR 149.11 (5) is amended to read:

NR 149.11 (5) ~~If requested, the~~ The limit of quantitation and limit of detection shall be determined ~~in accordance with a method specified by the department~~ for each analyte reported by a laboratory in accordance with a method specified by the department. The department may also require that the limit of detection be determined for a specific matrix.

SECTION 15. NR 149.14 (3)(d) and (h) are amended to read:

NR 149.14 (3)(d) At least one method blank shall be prepared or analyzed, or both on each analysis day, for those tests for which method blanks are appropriate. ~~For certain tests,~~ Certain methods require that a nonreacted sample ~~may~~ be used as a blank. Method blanks may not be used to correct sample results, except when specified in the method. There is no requirement to run a blank for solids testing performed under test category 4. The method blank results exceed control limits when results are higher than the highest of any of the following:

1. The limit of detection.

2. Five percent of the regulatory limit for that analyte.

3. Five percent of the measured concentration in the sample.

(3)(h) If the results of known standards, spiked samples, method blanks or replicates exceed the quality control limits, corrective action shall be taken by the laboratory. ~~When the attempted corrective action does not solve the problem, the~~ The laboratory shall reanalyze the affected samples or qualify the results back to the last acceptable quality control check of the same type unless the laboratory determines that sample results are unaffected. The results are qualified by reporting that the laboratory analysis was not within the acceptance limits for this test.

The foregoing rules were approved and adopted by the State of Wisconsin Natural Resources Board on March 23, 1995.

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 June 8, 1995

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

By George E. Meyer
George E. Meyer, Secretary

(SEAL)