

US EPA ARCHIVE DOCUMENT

APPENDIX P

**WV OFFICE OF WATER RESOURCES
RULE
WV 46 CSR 12**

**TITLE 46
LEGISLATIVE RULE
ENVIRONMENTAL QUALITY BOARD**

**SERIES 12
REQUIREMENTS GOVERNING
GROUNDWATER STANDARDS**

§46-12-1. General.

1.1. Scope. -- The purpose of this Legislative rule is to establish minimum standards of purity and quality for groundwater located within this State.

1.2. Authority. -- W. Va. Code §§22-12-4 and 22B-3-4.

1.3. Filing Date. -- June 1, 1998.

1.4. Effective Date. -- July 1, 1998.

§46-12-2. Definitions.

As used in this rule:

2.1. "Act" means the Groundwater Protection Act, W. Va. Code §22-12-1 et seq..

2.2. "Board" means Environmental Quality Board.

2.3. "Constituent" means any chemical or biological substance found in groundwater due to either natural or man-made conditions.

2.4. "Groundwater" means the water occurring in the zone of saturation beneath the seasonal high water table, or any perched water zones.

2.5 "Person" means any industrial user, public or private corporation, institution, association, firm or company organized or existing under the laws of this or any other state or country; State of West Virginia; governmental agency, including federal facilities; political subdivision; county commission; municipal corporation; industry; sanitary district; public service district; soil conservation district; watershed improvement

district; partnership; trust; estate; person or individual; group of persons or individuals acting individually or as a group; or any legal entity whatever.

§46-12-3. Groundwater Standards.

3.1. Except as provided in Sections 3.2 and 3.3, the standards of purity and quality for groundwater in the state shall be the constituent concentrations found in Appendix A.

3.2. Where the concentration of a constituent exceeds an otherwise applicable groundwater quality standard as a result of natural conditions, the naturally occurring level of that constituent shall become the groundwater quality standard for the affected area.

a. Where the concentration of a certain constituent exceeds an otherwise applicable groundwater quality standard due to human-induced contamination, no further contamination by that constituent shall be allowed, and every reasonable effort shall be made to identify, remove or mitigate the source of such contamination, and to strive where practical to reduce the level of contamination over time to support drinking water use.

3.3. Constituents in groundwater shall not cause a violation of the standards found at 46 CSR Series 1 in any surface water.

3.4. Groundwater quality standards do not apply:

a. Within areas of geologic formations which are site specific to site production or storage zones of crude oil or natural gas and which are utilized for the exploration, development or

production of crude oil or natural gas permitted pursuant to W.Va. Code Chapter 22, Articles 6, 7, 8, 9 or 10; and

b. Within areas of geologic formations which are site specific to the injection zones of Class II or III or wells permitted pursuant to the statutes and regulations governing the underground injection control program.

c. To any constituent or any class of activities for which a variance from groundwater quality standards has been granted by the Director pursuant to W. Va. Code §22-12-5(l).

d. To coal extraction and earth disturbing activities directly involved in coal extraction that are subject to either or both article three or eleven (§22-3-2 et seq. or §22-11-1 et seq.) of chapter 22 of the West Virginia Code.

3.5. Measurement of inorganic constituents

a. Compliance with groundwater protection standards for inorganic constituents shall be determined in terms of dissolved concentrations rather than total concentrations except as specified in section 3.5.b.

b. Any groundwater regulatory agency as specified in the Act may determine compliance with groundwater protection standards for inorganic constituents utilizing total concentration values, only as necessary to protect human health or the environment. Appropriate situations for utilizing total concentrations values include, but are not limited to, the following:

A. Sample is from a carbonate formation in an area of karst terrane:

B. Sample is from a collection point for groundwater used for private or public water supply; or where

C. Sample is from a spring or seep.

D. Sample is one for which state or federal regulations require that total inorganic concentrations be measured.

§46-12-4. Hazardous Waste Treatment, Storage or Disposal Facilities.

4.1. Nothing in this rule prohibits the Office of Waste Management, acting in accordance with federal regulations, from using criteria other than the standards specified in this rule for purposes of determining the need for corrective action at hazardous waste treatment, storage or disposal facilities, as provided in 40 C.F. R. Parts 264 and 265, Subpart F.

APPENDIX A

<u>Constituent</u>	<u>Not to Exceed (in mg/l except where noted)</u>
Alachlor	0.002
Antimony	0.006
Asbestos	7 MFL*
Atrazine	0.003
Barium	2.0
Benzene	0.005
Benzo (a) pyrene (PAH)	0.000 2
Beryllium	0.004
Cadmium	0.005
Carbofuran	0.04
Carbon tetrachloride	0.005
Chlordane	0.002
Chromium (total)	0.1
Cyanide	0.2
2, 4-D	0.07
Dalapon	0.2
Di(2-ethylhexyl)adipate	0.4
Di(2-ethylhexyl)phthalate	0.006
Dibromochloropropane (DBCP)	0.0002
Dichlorobenzene p-	0.075
Dichlorobenzene o-	0.6

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Dichlorobenzene m -	0.6
Dichloroethane (1,2)	0.005
Dichloroethylene (1,1-)	0.007
Dichloroethylene (cis- 1,2-)	0.07
Dichloroethylene (trans - 1,2-)	0.1
Dichloromethane	0.005
Dichloropropane (1,2-)	0.005
Dinoseb	0.007
Diquat	0.02
Endothall	0.1
Endrin	0.002
Ethylbenzene	0.7
Ethylene dibromide (EDB)	0.00005
Fluoride	4.0
Glyphosate	0.7
Heptachlor	0.0004
Heptachlor epoxide	0.0002
Hexachlorobenzene	0.001
Hexachlorocyclopentadiene	0.05
Lead	0.015
Lindane	0.0002
Mercury (inorganic)	0.002
Methoxychlor	0.04
Monochlorobenzene	0.1
Nickel	0.1

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Nitrate (as N)	10.0
Nitrite (as N)	1.0
Total Nitrate and Nitrite (both as N)	10.0
Oxamyl (Vydate)	0.2
Pentachlorophenol	0.001
Picloram	0.5
Polychlorinated biphenyls	0.0005
Selenium	0.05
Simazine	0.004
Styrene	0.1
2, 3, 7, 8- TCDD (Dioxin)	0.000000 005
Tetrachlorethylene	0.005
Thallium	0.002
Toluene	1.0
Toxaphene	0.003
2, 4, 5,- TP (Silvex)	0.05
Trichlorobenzene (1, 2, 4-)	0.07
Trichloroethane (1, 1, 1-)	0.2
Trichloroethane (1, 1, 2-)	0.005
Trichlorethylene	0.005
Vinyl Chloride	0.002
Xylenes (total)	10.0

Radionuclides

Beta particle and photon activity	4
	m
	r
	e
	m
	*
	*

Gross alpha particle activity	1
	5
	p
	C
	i/
	L
	*
	*
	*

Combined Radium 226 and 228	5
	p
	C
	i/
	l

*MFL = million fibers per liter

**mrem = millirem (rem = roentgen - equivalent - man)

*** pCi = picocurie