Comparison of Water Quality Limits in Indonesia
Health Regulations and Environmental Regulations

DRINKING WATER QUALITY REQUIREMENTS from
Regulation of the Minister of Health Number : 492/Menkes/Per/IV/2010
Date : April 19, 2010
https://www.mapurna.id/files/SK_Permenkes_492_2010.pdf accessed on 03/05/2021

Compared with:

ENVIRONMENTAL (RAW) WATER QUALITY REQUIREMENTS from
Government Regulation of the Republic of Indonesia Number 22 of 2021 Appendix VI
Regarding: Implementation of Environmental Protection and Management

Uncertified Translation

Peraturan Pemerintah Republik Indonesia Nomor 22 Tahun 2021 Lampiran VI
Tentang
Penyelenggaraan Perlindungan Dan Pengelolaan Lingkungan Hidup
https://peraturan.bpk.go.id/Home/Download/154527/PP%20Nomor%2022%20Tahun%202021%20-%20Lampiran.7z accessed on 10/05/2021

No. / Ref	Type of Unit	Parameters	Health Limits	Environmental Limits - Class 1
1	**Related parameters directly with health**			
	a. Microbiology Parameters			
	1) E. coli	Total per 100 ml sample	0 (zero)	
47	2) Total Coliform Bacteria	Total per 100 ml sample	0 (zero)	1,000
46	Fecal Coliform	Total per 100 ml sample		100
46	Chlorophyll-a (lakes only)	mg/m^3		10
	b. Inorganic chemistry			
23	1) Arsenic	mg/l	0.01	0.05
16	2) Fluoride	mg/l	1.5	1
33	3) Total Chromium	mg/l	0.05	0.05 (Cr – VI)
26	4) Cadmium	mg/l	0.003	0.01
12	5) Nitrite, (As NO_2-)	mg/l	3	0.06 (as N)
11	6) Nitrate, (As NO_3-)	mg/l	50	10 (as N)
18	7) Cyanide	mg/l	0.07	0.02
24	8) Selenium	mg/l	0.01	0.01
14	Total Nitrogen	mg/l		15 (rivers) 0.65 (lakes)
15	Total Phosphate	mg/l		0.2 (rivers) 0.01 (lakes)
17	Sulphur as H_2S	mg/l		0.002
27	Cobalt	mg/l		0.2

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2	**Parameters which are not directly related to health**			
	a. Physical Parameters			
	1) Odor / Smell		Odorless	
4	2) Color	TCU	15	15
	3) Total dissolved solids (TDS)	mg/l	500	1,000
	4) Turbidity	NTU	5	
	5) Taste		Tasteless	
1	6) Temperature	°C	Air temp' ± 3	Air temp' ± 3
3	Total suspended solids (TSS)	mg/l		40 (rivers) 25 (lakes)
6	Kebutuhan oksigen biokimiawi (BOD)	mg/L		2
7	Kebutuhan oksigen kimiawi (COD)	mg/L		10
8	Oksigen Terlarut (DO)	mg/L		6 minimum
48	Garbage			nil
	b. Chemical Parameters			
	1) Aluminium	mg/l	0.2	
25	2) Iron	mg/l	0.3	0.3
	3) Hardness	mg/l	500	
10	4) Chloride	mg/l	250	300
28	5) Manganese	mg/l	0.4	0.1 (rivers) 0.4 (lakes)
5	6) pH		6.5 - 8.5	6.0 – 9.0
30	7) Zinc	mg/l	3	0.05
9	8) Sulfate	mg/l	250	300
31	9) Copper	mg/l	2	0.02
13	10) Ammonia	mg/l	1.5	0.1 as N

II. ADDITIONAL PARAMETERS

No. / Ref	Type of Unit	Parameters	Health Limits	Environmental Limits - Class 1
1	**Chemical**			
a.	**Inorganic Materials**			
22	Mercury	mg/l	0.001	0.001
	Antimony	mg/l	0.02	
20	Barium	mg/l	0.7	1.0
21	Boron	mg/l	0.5	1.0
	Molybdenum	mg/l	0.07	
29	Nickel	mg/l	0.07	0.05
	Sodium	mg/l	200	
32	Lead	mg/l	0.01	0.03
	Uranium	mg/l	0.015	

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b.	**Organic Materials**			
	Organic Substances ($KMn0_4$)	mg/l	10	
35	Detergent	mg/l	0.05	0.2
34	Oils and fats	mg/l		1
	Chlorinated alkanes			
	Carbon tetrachloride	mg/l	0.004	
	Dichloromethane	mg/l	0.02	
	1,2 -Dichloroethane	mg/l	0.05	
	Chlorinated ethenes			
	1,2 -Dichloroethene	mg/l	0.05	
	Trichloroethene	mg/l	0.02	
	Tetrachloroethene	mg/l	0.04	
	Aromatic hydrocarbons			
	Benzene	mg/l	0.01	
	Toluene	mg/l	0.7	
	Xylenes	mg/l	0.5	
	Ethylbenzene	mg/l	0.3	
	Styrene	mg/l	0.02	
	Chlorinated benzenes			
	1.2-Dichlorobenzene (1,2-DCB)	mg/l	1	
	1.4-Dichlorobenzene (1,4-DCB)	mg/l	0.3	
	Other			
	Di(2-ethylhexyl) phthalate	mg/l	0.008	
	Acrylamide	mg/l	0.0005	
	Epichlorohydrin	mg/l	0.0004	
	Hexachlorobutadiene	mg/l	0.0006	
	Ethylenediaminetetraacetic acid (EDTA)	mg/l	0.6	
	Nitrilotriacetic acid (NTA)	mg/l	0.2	
c.	**Pesticides**			
	Alachlor	mg/l	0.02	
	Aldicarb	mg/l	0.01	
37	Aldrin and dieldrin	mg/l	0.000 03	0.000 017
	Atrazine	mg/l	0.002	
	Carbofuran	mg/l	0.007	
39	Chlordane	mg/l	0.0002	0.0003
	Chlorotoluron	mg/l	0.03	
40	DDT	mg/l	0.001	0.000 002
	1.2- Dibromo-3-chlorop 00ropane (DBCP)	mg/l	0.001	
	2.4 Dichlorophenoxyacetic acid (2,4-D)	mg/l	0.03	
	1,2 -Dichloropropane	mg/l	0.04	
	Isoproturon	mg/l	0.009	
43	Lindane	mg/l	0.002	0.000 056
	MCPA - methylchlorophenoxyacetic acid	mg/l	0.002	
44	Methoxychlor	mg/l	0.02	0.000 035
	Metolachlor	mg/l	0.01	

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	Molinate	mg/l	0.006	
	Pendimethalin	mg/l	0.02	
	Pentachlorophenol (PCP)	mg/l	0.009	
36	Phenol	mg/l		0.002
	Permethrin	mg/l	0.3	
	Simazine	mg/l	0.002	
	Trifluralin	mg/l	0.02	
	Chlorophenoxy herbicides other than 2.4-D and MCPA			
	2.4-DB	mg/l	0.090	
	Dichlorprop	mg/l	0.10	
	Phenoprop	mg/l	0.009	
	Mecoprop	mg/l	0.001	
	2,4,5-Trichlorophenoxyacetic acid	mg/l	0.009	
38	Benzene hexachloride (BHC)	ug/l		210
41	Endrin	ug/l		1
42	Heptachlor	ug/l		18
45	Toxapan	ug/l		5
d	**Disinfectants and Their Byproducts**			
	Disinfectant			
19	Chlorine *(environmental limit not applicable for [raw] drinking water)*	mg/l	5	0.03
	Byproducts			
	Bromate	mg/l	0.01	
	Chlorate	mg/l	0.7	
	Chlorite	mg/l	0.7	
	Chlorophenols			
	2,4,6 -Trichlorophenol (2,4,6-TCP)	mg/l	0.2	
	Bromoform	mg/l	0.1	
	Dibromochloromethane (DBCM)	mg/l	0.1	
	Bromodichloromethane (BDCM)	mg/l	0.06	
	Chloroform	mg/l	0.3	
	Chlorinated acetic acids			
	Dichloroacetic acid	mg/l	0.05	
	Trichloroacetic acid	mg/l	0.02	
	Chloral hydrate			
	Halogenated acetonitrilies			
	Dichloroacetonitrile	mg/l	0.02	
	Dibromoacetonitrile	mg/l	0.07	
	Cyanogen chloride (as CN)	mg/l	0.07	
	RADIOACTIVITY			
	Gross alpha activity	Bq/l	0.1	0.1
	Gross beta activity	Bq/l	1	1