

Decree of the State Minister of the Environment
Number 51 of 2004
Regarding Standard Quality of Seawater

State Minister of the Environment, Republic of Indonesia

2004

Article 1

The definition of terms stated in this ministerial decree is as follows.

1. Sea is coastal areas comprised of geographical units in combination with related elements, with borders and systems designated based on functional aspects.
2. Water quality standards of sea water measure the level or quality of organisms, substances, energy or elements that are present or should be present in sea water, and/or pollutants that limit presence in sea water.
3. A port/harbour is a place consisting of land and the surrounding waters with certain borders as a base for government administrative and economic activities used as place for vessels to drop anchor, cruise, and for passengers to go on and off board and/or for unloading and loading of goods, as well as for changeover of mode of internal or interim transportation, that is equipped with marine safety facilities and port supporting facilities.
4. Marine tourism is recreational activity or tourism on the sea and on shore.
5. The sea biota is made up of various types of life forms found in the sea.
6. The minister must be the minister appointed to manage the environment and control environmental impacts.

Article 2

The sea water quality standards in these regulations include the water quality of sea water used for ports and harbour areas, marine tourism and sea biota.

Article 3

- (1) Water quality standards for port and harbour areas are prescribed in Annex I of this ministerial decree.
- (2) Water quality standards for marine tourism are prescribed in Annex II of this ministerial decree.
- (3) Water quality standards for sea biota waters are prescribed in Annex III of this ministerial decree.
- (4) The water quality standards for sea water stated in (1), (2) and (3) must be reviewed at least once every five years.

Article 5¹

- (1) Provincial areas may enact water quality standards equivalent to or more stringent than the water quality standards for sea water of this ministerial decree.
- (2) In the case that water quality standards for sea water enacted by provincial areas precede this ministerial decree and are more lenient, these water quality standards for sea water must be reconciled with this ministerial decree no later than within 2 years of the date of enactment of this ministerial decree.
- (3) Provincial areas may determine additional parameters to respond to the state of ecosystems in concerned regions.
- (4) In the case that provincial areas have not enacted water quality standards for sea water, the water quality standards determined by this ministerial decree must be applied.

Article 6

- (1) In order to determine the water quality of sea water in provincial areas, the Governors, Mayors and Regents must carry out monitoring at least two times in one.²
- (2) Based on water quality monitoring, Governors and Mayors/Regents must carry out follow-up surveys through programmes to control marine pollution.

¹ Translator's note: In the original, Article 4 was missing in between Article 3 and 5.

Article 7

For marine areas that do not fall under ports and harbours and marine tourism, water quality standards for sea water in sea biota must be referred to.

Article 8

Upon the release of this ministerial decree, the Decree of the Minister for Population and Environment No. 1 of 1988 (Kep-02/MENKLH/1/1988) that gives consideration to Ch. 4 (attached table) of guidelines for enacting environmental quality standards is made null and void.

Article 9

This ministerial decree will become effective on the enactment date.

Enacted in Jakarta

8 April 2004

Minister of Environment

Signature

Nabiel Makarim, MPA, MBA

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Deputy Minister for Environmental Policy and Institution

Ministry of Environment

Signature

Hoetomo, MPA

² Translator's note: The original English translation states, "To determine the quality of seawater of its region, the Governor, Regent/Mayor is obliged to perform monitoring at least 2(two) times in one of", but the detailed implications of "at least 2 (two) times in one of" is unknown.

Marine water quality standards for ports and harbours

Annex II

2004 Decree of the State Minister of the Environment, No. 51

No.	Parameter	Unit	Standard value
	Physical parameters		
1	Clarity	m	>3
2	Odor	-	Odorless
3	Total suspended matter	mg/l	80
4	Refuse	-	Undetected
5	Temperature	°C	Normal
6	Oil film	-	Undetected
	Chemical parameters		
1	Hydrogen ion concentration (pH)	-	6.5-8.5
2	Salinity	‰	Normal
3	Total ammonia (NH)	mg/l	0.3
4	Sulphide (H)	mg/l	0.03
5	Hydrocarbons	mg/l	1
6	Phenols	mg/l	0.002
7	PCB (polychlorinated biphenyl)	µg/l	0.01
8	Surfactants (detergents)	mg/l MBAS	1
9	Oil and grease	mg/l	5
10	TBT (tributyltin)	µg/l	0.01
	Dissolved metals	mg/l	
1	Mercury (Hg)	mg/l	0.003
2	Cadmium (Cd)	mg/l	0.01
3	Copper (Cu)	mg/l	0.05
4	Lead (Pb)	mg/l	0.05
5	Zinc (Zn)	mg/l	0.1
	Organism parameters		
1	Coliform bacteria (total number)	MPN/100ml	1000

Notes:

1. "Not detected" means less than the limit of determination of assessment method based on the limit of determination of the equipment used (conforming to said assessment method).
2. Methods of analysis follow existing national and/or international analytical methods for marine

- water.
3. Normal refers to the natural state within the environment that differs according to time (day, night and seasons).
 4. Human observation (visual observation).
 5. Human observation (visual observation). An oil film indicates a thin layer of oil film with a thickness of 0.01 mm.
 6. TBT (tributyltin) is an antifouling agent found in ship paint.
 - a. Permissible deviation up to <10% euphotic depth³.
 - b. Permissible deviation is up to <10% average seasonal concentration.
 - c. Permissible deviation is up to <2°C from the normal temperature.
 - d. Permissible deviation is <0.2 in pH units.
 - e. Permissible deviation is up to <5% average seasonal concentration.
 - f. Permissible deviation is up to <10% average seasonal concentration.

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³Translator's note: Water layer in lakes, marshes or ocean that is exposed to sunlight.

Water quality standards for waters used for marine recreation

Annex II

2004 Decree of the State Minister of the Environment, No. 51

No.	Parameter	Unit	Standard value
	Physical parameters		
1	Clarity	m	>3
2	Odor	-	Odorless
3	Total suspended matter	mg/l	80
4	Refuse	-	Undetected
5	Temperature	°C	Normal
6	Oil film	-	Undetected
	Chemical parameters		
1	Hydrogen ion concentration (pH)	-	6.5-8.5
2	Salinity	‰	Normal
3	Total ammonia (NH)	mg/l	0.3
4	Sulphides (H)	mg/l	0.03
5	Hydrocarbons	mg/l	1
6	Phenols	mg/l	0.002
7	PCB (polychlorinated biphenyl)	µg/l	0.01
8	Surfactants (detergents)	mg/l MBAS	1
9	Oil and grease	mg/l	5
10	TBT (tributyltin)	µg/l	0.01
	Dissolved metals	mg/l	
1	Mercury (Hg)	mg/l	0.003
2	Cadmium (Cd)	mg/l	0.01
3	Copper (Cu)	mg/l	0.05
4	Lead (Pb)	mg/l	0.05
5	Zinc (Zn)	mg/l	0.095
	Organism parameters		
1	Coliform bacteria (total number)	MPN/100ml	1000 ^(g)

Notes:

1. "Not detected" means less than the limit of determination of assessment method based on the limit of determination of the equipment used (conforming to said assessment method).
2. Methods of analysis follow existing national and/or international analytical methods for marine

- water.
3. Normal refers to the natural state within the environment that differs according to time (day, night and seasons).
 4. Human observation (visual observation)
 5. Human observation (visual observation). An oil film indicates a thin layer of oil film with a thickness of 0.01 mm.
 - a. Permissible deviation up to <10% euphotic depth.
 - b. Permissible deviation is up to <10% average seasonal concentration.
 - c. Permissible deviation is up to <2°C from the normal temperature.
 - d. Permissible deviation is <0.2 in pH units.
 - e. Permissible deviation is up to <5% average seasonal concentration.
 - f. Various types of pesticides, e.g. DDT, Endrin, Endosulfan, Heptachlor.
 - g. Permissible deviation is up to <10% average seasonal concentration.

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Water quality standards suited to marine ecosystems

Annex III

2004 Decree of the State Minister of the Environment, No. 51

No.	Parameter	Unit	Standard value
	Physical parameters		
1	Clarity	m	Coral: >5 Mangrove: – Lamun (sea grass): >3
2	Odor	-	Normal
3	Turbidity	NTU	<5
4	Total suspended matter	mg/l	Coral: 20 Mangrove: 80 Lamun (sea grass): 20
5	Refuse	-	Undetected
6	Temperature	°C	Normal Coral: 28-30 Mangrove: 28-32 Lamun (sea grass) : 28-30
7	Oil film	-	Undetected
	Chemical categories		
1	Hydrogen ion concentration (pH)	-	7-8.5
2	Salinity	‰	Normal Coral: 33-34 Mangrove: s/d34 Lamun (sea grass): 33-34
3	Dissolved oxygen (DO)	mg/l	>5
4	Biochemical oxygen demand (BOD)	mg/l	20
5	Free ammonia (NH)	mg/l	0.3
6	Orthophosphate (PO)	mg/l	0.015
7	Nitrate nitrogen (NO)	mg/l	0.008
8	Cyanide (CN)	mg/l	0.5
9	Sulphides (H)	mg/l	0.01
10	PAH (Polycyclic aromatic hydrocarbons)	mg/l	0.003
11	Phenols	mg/l	0.002
12	PCB (polychlorinated biphenyl)	µg/l	0.01
13	Surfactants (detergents)	mg/l MBAS	1

14	Oil and grease	mg/l	1
15	Pesticides	mg/l	0.01
16	TBT (tributyltin)	µg/l	0.01
	Dissolved metals	mg/l	
1	Mercury (Hg)	mg/l	0.001
2	Hexavalent chromium (Cr		0.005
3	Arsenic (As)		0.012
4	Cadmium (Cd)	mg/l	0.001
5	Copper (Cu)	mg/l	0.008
6	Lead (Pb)	mg/l	0.008
7	Zinc (Zn)	mg/l	0.05
8	Nickel (Ni)		0.05
	Organism parameters		
1	Coliform bacteria (total number)	MPN/100ml	1000
2	Pathogens	sel/100ml	Undetected
3	Plankton	sel/101ml	No abnormal blooms
	Radioactive material		
1	Substances with unknown composition	Bq/l	4

Notes:

1. "Not detected" means less than the limit of determination of assessment method based on the limit of determination of the equipment used (conforming to said assessment method).
2. Methods of analysis follow existing national and/or international analytical methods for marine water.
3. Normal refers to the natural state within the environment that differs according to time (day, night and seasons).
4. Human observation (visual observation).
5. Human observation (visual observation). An oil film indicates a thin layer of oil film with a thickness of 0.01 mm.
6. No abnormal blooms refers to the absence of extreme increases that causes eutrophication. Extreme plankton increases yield effects on nutrients, light, temperature, the flow of tides and the stability of plankton itself.
7. TBT (tributyltin) is an antifouling agent found in ship paint.
 - a Permissible deviation up to <10% euphotic depth.
 - b Permissible deviation is up to <10% average seasonal concentration.
 - c Permissible deviation is up to <2°C from the normal temperature.
 - d Permissible deviation is <0.2 in pH units.
 - e Permissible deviation is up to <5% average seasonal salinity.
 - f Various types of pesticides, e.g. DDT, Endrin, Endosulfan, Heptachlor.
 - g Permissible deviation is up to <10% average seasonal concentration.

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