

# DISCHARGE STANDARDS & SEWERAGE ACT

**Dr. Mohamad Darwish**

# WASTEWATER QUALITY STANDARDS

## Environmental Quality (Sewage) Regulations 2009 :

- ▶ Sets standards for new sewage treatment system and existing sewage treatment system (approved before and after January 1999)
- ▶ Standard A and Standard B

***ENVIRONMENTAL QUALITY ACT 1974***



**ENVIRONMENTAL QUALITY (SEWAGE)  
REGULATIONS 2009**



**Regulation 7**



**ACCEPTABLE CONDITIONS OF SEWAGE DISCHARGE  
OF STANDARDS A & B**

# New Sewage Treatment System

	Parameter	Unit	Standard A	Standard B
(a)	Temperature	C	40	40
(b)	pH value	-	6.0-9.0	5.5-9.0
(c)	BOD <sub>5</sub> @ 20°C	mg/L	20	50
(d)	COD	mg/L	120	200
(e)	Suspended Solids	mg/L	50	100
(f)	Oil & Grease	mg/L	5.0	10.0
(g)	Amm.Nitrogen (enc. water body)	mg/L	5.0	5.0
(h)	Amm. Nitrogen (river)	mg/L	10.0	20.0
(i)	Nitrate-N (river)	mg/L	20.0	50.0
(j)	Nitrate-N(enc. water body)	mg/L	10.0	10.0
(k)	Phosphorous (enc. water body)	mg/L	5.0	10.0

# Existing Sewage Treatment System (approved after January 1999)

	Parameter	Unit	Standard A	Standard B
(a)	BOD <sub>5</sub> @ 20°C	mg/L	20	50
(b)	COD	mg/L	120	200
(c)	Suspended Solids	mg/L	50	100
(d)	Oil & Grease	mg/L	20	20
(e)	Ammoniacal Nitrogen	mg/L	50	50

**Note:**

Standard A is applicable to discharge into any inland waters within catchment areas listed in the Third Schedule, while Standard B is applicable to any other inland waters or Malaysian waters.

# Existing Sewage Treatment System (approved before January 1999)

	Parameter	Unit	Type of Sewage Treatment System									
			Communal Septic Tank		Imhoff Tank		Aerated Lagoon		Oxidation Pond		Mechanical System	
			A	B	A	B	A	B	A	B	A	B
(a)	BOD <sub>5</sub> @20°C	mg/L	200	200	175	175	100	100	120	120	60	60
(b)	COD	mg/L	-	-	-	-	300	300	360	360	180	240
(c)	SS	mg/L	180	180	150	150	120	120	150	150	100	120
(d)	O & G	mg/L	-	-	-	-	-	-	-	-	20	20
(e)	Amm-N	mg/L	-	-	100	100	80	80	70	70	60	60



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Pointer 1°33'27.24" N 103°38'58.33" E elev 92 ft Streaming ||||| 100%

Eye alt 12891 ft



Intake Point



UTM's STP



**STD. B**



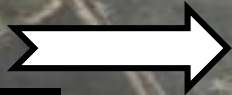
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Pointer 1°33'09.29" N 103°39'17.21" E elev 44 ft Streaming 100%

Eye alt 7247 ft





**STD. A**

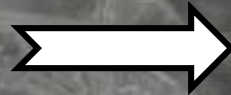


**STD. A**

**STD. A**



**STD. B**



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# DRINKING WATER QUALITY STANDARD

Basis as guideline of treated water quality to be achieved  
by the water treatment plant operator

Prepared by MOH based on WHO standard

# Drinking Water Quality Standard

<b>PARAMETERS</b>	<b>MAXIMUM ACCEPTABLE VALUE</b>
Total coliform	Not detected in ANY 100 mL sample
E. Coli	Absent in 100 mL sample
Fecal streptococci	Absent in 100 mL sample (MF) < 1 in 100 mL (MPN)
Turbidity, NTU	5
Colour, NTU	15
Iron, mg/L	0.3
Hardness, mg/L	500