

APPENDIX 9

**ALLOWABLE LIMITS FOR TRADE EFFLUENT DISCHARGED
INTO A PUBLIC SEWER/WATERCOURSE/CONTROLLED WATERCOURSE**

Items Of Analysis	Public Sewer	Watercourse	Controlled Watercourse
	Units in milligram per litre or otherwise stated		
1 Temperature of discharge	45°C	45°C	45°C
2 Colour	-	7 Lovibond Units	7 Lovibond Units
3 pH Value	6 - 9	6 - 9	6 - 9
4 BOD (5 days at 20°C)	400	50	20
5 COD	600	100	60
6 Total Suspended Solids	400	50	30
7 Total Dissolved Solids	3000	2000	1000
8 Chloride (as chloride ion)	1000	600	400
9 Sulphate (as SO ₄)	1000	500	200
10 Sulphide (as sulphur)	1	0.2	0.2
11 Cyanide (as CN)	2	0.1	0.1
12 Detergents (linear alkylate sulphonate as methylene blue active substances)	30	15	5
13 Grease and Oil	-	10	5
Grease and Oil (Hydrocarbon)	60	-	-
Grease and Oil (Non-hydrocarbon)	100	-	-
14 Arsenic	5	1	0.05
15 Barium	10	5	5
16 Tin	10	10	5
17 Iron (as Fe)	50	20	1
18 Beryllium	5	0.5	0.5
19 Boron	5	5	0.5
20 Manganese	10	5	0.5
21 Phenolic Compounds (expressed as phenol)	0.5	0.2	Nil
22 *Cadmium	1	0.1	0.01
23 *Chromium (trivalent and hexavalent)	5	1	0.05
24 *Copper	5	0.1	0.1
25 *Lead	5	0.1	0.1
26 *Mercury	0.5	0.05	0.001
27 *Nickel	10	1	0.1
28 *Selenium	10	0.5	0.01
29 *Silver	5	0.1	0.1
30 *Zinc	10	1	0.5
31 *Metals in Total	10	1	0.5
32 Chlorine (Free)	-	1	1
33 Phosphate (as PO ₄)	-	5	2
34 Calcium (as Ca)	-	200	150
35 Magnesium (as Mg)	-	200	150
36 Nitrate (NO ₃)	-	-	20

NOTE: * The concentration of Toxic Metal shall not exceed the limits as shown, individually or in total.

'Controlled Watercourse' means a watercourse from which potable water supplied by PUB under the Public Utilities Act is obtained but does not include a watercourse from which water is pumped into a main of the PUB.

The trade effluent discharged must not include:-

- (1) Calcium carbide.
- (2) Petroleum spirit or other inflammable solvents.
- (3) Materials that may give rise to fire or explosion hazards.
- (4) Materials that may be a hazard to human life, a public nuisance, injurious to health or otherwise objectionable.
- (5) Refuse, garbage, sawdust, timber, or any solid matter.
- (6) Pesticides, fungicides, insecticides, herbicide, rodenticide or fumigants.
- (7) Radioactive material.

The trade effluent discharged into a public sewer must not include rainwater, storm water, ground water or other form of street drainage, subsurface drainage, roof drainage or yard drainage.

The trade effluent shall be analysed in accordance with the latest edition of 'Standard Methods for the Examination of Water and Wastewater' published jointly by the American Water Works Association and the Water Pollution Control Federation of the United States.