

SCHEDULE B

STANDARDS FOR TRADE WASTE DISCHARGED TO THE SEWERAGE SYSTEM

Trade waste discharged from land, at the point where it is sampled, must comply with the standards set out in this Schedule.

1. PHYSICAL CHARACTERISTICS

1.1. Temperature

An occupier must not discharge trade waste with a temperature greater than 38°C.

1.2. Solids

An occupier must not discharge trade waste containing Gross Solids, Suspended Solids or Total Dissolved Solids except as provided in paragraphs (a) to (d).

(a) Gross Solids contained in trade waste must-

- (i) be able to pass through a bar screen with 13mm spaces between bars; and
- (ii) have a quiescent settling velocity of not more than 3m/hour.

(b) Where the total mass load of Suspended Solids exceeds 1000 kg/day, the concentration of Suspended Solids must not exceed 10,000 mg/litre.

(c) Except as provided in paragraph (d), the total mass load of Total Dissolved Solids must not exceed 200 kg/day.

(d) An occupier must not discharge waste containing fibrous material which, in the opinion of the Authorised Person is likely to cause obstructions in a drain or sewer.

1.3. Oils, fats and grease

(a) An occupier must not discharge trade waste containing any free or floating layer of oil, fat or grease.

(b) An occupier may discharge trade waste containing emulsified oil, fat or grease which, in the opinion of the Authorised Person, is biodegradable, if the emulsion is stable -

- (i) at a temperature of 15°C; and
- (ii) when it is in contact with raw sewage and the resulting mixture has a pH no less than 4.5 and no greater than 10.0.

- (c) An occupier must not discharge trade waste containing emulsified oil, fat or grease which, in the opinion of the Authorised Person is not biodegradable, if it contains more than 1000 mg/litre of material recovered by a solvent prescribed by the Authorised Person as extractable matter when the emulsion-
 - (i) is stable at a temperature of 15°C; and
 - (ii) is in contact with raw sewage and the resulting mixture has a pH no less than 4.5 and no greater than 10.0.
- (d) An occupier must not discharge trade waste containing emulsified oil, fat or grease if it contains more than 200 mg/litre of material recovered by a solvent prescribed by the Authorised Person as extractable matter when the emulsion -
 - (i) is unstable at a temperature of 15°C; and
 - (ii) is in contact with raw sewage and the resulting mixture has a pH no less than 4.5 and no greater than 10.0.

1.4. Organic Liquids

- (a) An occupier must not discharge trade waste containing any free or floating layer of organic liquid.
- (b) An occupier must not discharge any trade waste which in the opinion of the Authorised Person, may be flammable.

1.5. Latex Emulsions

- (a) In this sub-clause -
 - "biodegradable" in relation to trade waste means that, in the opinion of the Authorised Person, the Total Organic Carbon content of the trade waste would decrease by at least 90% when submitted to the sewage treatment process employed by *Melbourne Water* for that waste;
 - "latex emulsion" includes an emulsion containing paint, adhesive, rubber, plastic or similar materials;
 - "stable latex emulsion" means a latex emulsion in which the solids deposited in a filter do not increase by more than 200 mg/litre when the emulsion-
 - (i) is at 15°C; and
 - (ii) is in contact with raw sewage and the resulting mixture has a pH no less than 4.5 and no greater than 10.0.
- (b) An occupier may discharge trade waste containing a biodegradable stable latex emulsion.

- (c) An occupier must not discharge trade waste containing a stable latex emulsion, which is not biodegradable at a concentration greater than 1000 mg/litre of total solids.
- (d) An occupier must not discharge trade waste containing an unstable latex emulsion.

1.6. Radioactive waste

An occupier must only discharge trade waste which complies in all respects with the Health (Radiation Safety) Regulations 1994, as amended from time to time.

1.7. Colour

An occupier must not discharge trade waste containing Colour greater than 9 Adams-Nickerson (42) units, determined from the most pronounced Colour obtained from a sample adjusted to a pH of not less than 7.0 and no greater than 8.0 following biological treatment by an activated sludge process.

2. CHEMICAL CHARACTERISTICS

2.1. pH Value

An occupier must not discharge trade waste with a pH value less than 6.0 or greater than 10.0, except as provided by Clause 2.3 (b) (ii).

2.2. Organic Concentration

An occupier must not discharge trade waste with a total mass load of 5-day Biochemical Oxygen Demand in excess of 1,000 kg/day, unless its concentration is no greater than 4,000 mg/litre.

2.3. Nitrogen

An occupier must not discharge trade waste with a concentration of;

- (a) Total Kjeldahl Nitrogen greater than 500 mg/litre; or
- (b) Ammonia, plus ammoniacal ion (expressed as N) greater than:
 - (i) 50 mg/litre, except as provided by this paragraph.
 - (ii) 200 mg/litre, where –
 - (A) the trade waste discharged can only be received by *Melbourne Water's* Western Treatment Plant;
 - (B) a risk assessment has been conducted;
 - (C) the occupier can comply with a restricted pH range of 6.0 to 8.0; and
 - (D) the occupier has demonstrated to the Authorised Person, that commonly available waste minimisation technology has been applied to the best extent practicable.

2.4. Sulfur Substances

- (a) Oxidised Sulfur
 - (i) For the purposes of this paragraph, "Oxidised Sulfur" means the chemical substances expressed as S and known as Sulfates, Sulfites and Thiosulfates.
 - (ii) An occupier must not discharge trade waste containing Oxidised Sulfur with a concentration of 100 mg/litre or more, except as provided in this paragraph.
 - (iii) An occupier must treat any trade waste with a concentration of Oxidised Sulfur greater than 600 mg/litre, before it is discharged.
 - (iv) Where trade waste prior to discharge would have a total concentration of Oxidised Sulfur of not less than 100 mg/litre and not more than 600 mg/litre, an occupier must treat any stream of waste contributing to the discharge which has a concentration of Oxidised Sulfur greater than 600 mg/litre.
 - (v) An occupier must use the best available technology, as determined by the Authorised Person, to treat any trade waste under sub-paragraph (iii) or (iv).
- (b) An occupier must not discharge trade waste containing Sulfide in a concentration greater than 1 mg/litre.

2.5. Metals

- (a) An occupier must not discharge any element listed in Column 1 of Table A, except in accordance with this sub-clause 2.5.
- (b) Where the daily mass load of any element discharged is between the lower limit specified in Column 2 and the upper limit specified in Column 3 for that element, trade waste must not exceed the concentration specified in Column 4.
- (c) Where the daily mass load of any element discharged is either lower than the limit specified in Column 2 or greater than the limit specified in Column 3, the Authorised Person must determine the maximum concentration of that element which an occupier may discharge.
- (d) Where no entry is made in Columns 2 and 3 for any element, trade waste must not exceed the concentration for that element specified in Column 4.
- (e) Where the occupier has demonstrated to the Authorised Person, that it is unable to limit the concentration of Boron (as B) to the concentration specified in Table A, Column 4 using commonly available waste minimisation technology to the best extent practicable, the occupier may discharge trade waste containing boron in a concentration no greater than 100 mg/litre.
- (f) Where the occupier has demonstrated to the Authorised Person, that it is unable to limit the concentration of Manganese (as Mn) to the concentration specified in Table A, Column 4 using commonly available waste minimisation technology to the best extent practicable, the occupier

may discharge trade waste containing Manganese in a concentration no greater than 100 mg/litre.

TABLE A

| Column 1 | Column 2 | Column 3 | Column 4 |
|---------------------|-----------|-----------|----------------------|
| Element | grams/day | grams/day | Milligrams per litre |
| Arsenic | | | 1 |
| Boron as B | | | 25 |
| Barium | | | 150 |
| Beryllium | | | 30 |
| Cadmium | 0.4 | 20 | 2 |
| Chromium | 100 | 5,000 | 10 |
| Cobalt | | | 10 |
| Copper | 100 | 5,000 | 10 |
| Iron | 2,000 | 100,000 | 100 |
| Lead | 100 | 5,000 | 10 |
| Manganese | | | 10 |
| Mercury | 0.2 | 10 | 1.0 |
| Molybdenum | | | 10 |
| Nickel | 10 | 500 | 10 |
| Selenium | | | 10 |
| Silver ¹ | 0.2 | 50 | 5 |
| Thallium | | | 20 |
| Tin | | | 10 |
| Uranium(238) | | | 30 |
| Zinc | 200 | 15,000 | 10 |

¹ based on analysis using digestion with aqua regia.

2.6. Halogens and Halides

An occupier must not discharge trade waste containing a substance listed in Table B with a concentration greater than is listed for that substance.

TABLE B

| Substance | <i>Maximum Allowable Concentration</i> Milligrams per litre |
|--|--|
| Bromine (expressed as Br ₂) | 5 |
| Chlorine (expressed as Cl ₂) | 5 |
| Fluoride | 30 |
| Iodine (expressed as I ₂) | 5 |

2.7. Cyanide

An occupier must not discharge trade waste containing a cyanide concentration greater than 10 mg/litre.

2.8. Inhibitory Chemicals

- (a) An occupier must not discharge any trade waste which, when diluted to a solution with sewage, would inhibit the microbiological sewage treatment process applicable to that trade waste by more than 20%.
- (b) The Authorised Person must determine the microbiological sewage treatment process referred to in paragraph (a).

2.9. Organic Acids

An occupier must not discharge trade waste containing total phenoxyacetic acids and chemical derivatives (expressed as phenoxyacetic acid) at a concentration greater than 1,000 mg/litre.

2.10. Phenolic Substances

An occupier must not discharge trade waste containing a substance listed in Table C with a concentration greater than is listed for that substance.

TABLE C

| Substance | Maximum Allowable Concentration Milligrams per litre |
|---|---|
| Sum of Phenol, Monochlorophenol, Dichlorophenol & their isomers | 300 |
| Trichlorophenol | 50 |
| Tetrachlorophenols (Total) | 5 |
| Pentachlorophenol | 5 |

2.11. Aldehydes and Ketones

An occupier must not discharge trade waste containing a substance listed in Table D with a concentration greater than is listed for that substance.

TABLE D

| Substance | Maximum Allowable Concentration Milligrams per litre |
|----------------------------------|---|
| Acetone | 50 |
| Acrolein | 0.1 |
| Formaldehyde (expressed as HCHO) | 200 |

2.12. Nitriles

An occupier must not discharge trade waste containing acrylonitrile at a concentration greater than 1.0 mg/litre.

2.13. Mononuclear Aromatic Hydrocarbon

An occupier must not discharge trade waste containing a mononuclear aromatic hydrocarbon listed in Table E in a concentration greater than is listed for that substance.

TABLE E

| Substance | Maximum Allowable Concentration Milligrams per litre |
|--------------------|---|
| Benzene | 1.0 |
| Cumene | 3.0 |
| 2,4 Dinitrotoluene | 10.0 |
| 2,6 Dinitrotoluene | 10.0 |
| Ethylbenzene | 2.0 |
| Nitrotoluene | 5.0 |
| Styrene | 2.0 |
| Toluene | 2.0 |
| Total Xylenes | 2.0 |

2.14. Halogenated Aliphatic Hydrocarbons

An occupier must not discharge trade waste containing an halogenated aliphatic hydrocarbon listed in Table F in a concentration greater than is listed for that substance.

TABLE F

| Substance | Maximum Allowable Concentration Milligrams per litre except as otherwise indicated |
|---------------------------------------|---|
| 1,1 Dichloroethane | 5.0 |
| 1,2 Dichloroethane | 5.0 |
| 1,1,1 Trichloroethane | 3.0 |
| 1,1,2 Trichloroethane | 3.0 |
| 1,1,2,2 Tetrachloroethane | 2.0 |
| Hexachloroethane | 1.0 |
| Chloroethane (Vinyl Chloride Monomer) | 0.5 |
| 1,2 Dichloroethylene | 5.0 |
| Trichloroethylene | 1.0 |
| Tetrachloroethylene | 1.0 |
| Carbon Tetrachloride | 1.0 |
| Methylene Chloride | 5.0 |
| Methyl Chloride | 1.0 µg/L |
| Methyl Bromide | 1.0 µg/L |
| Trichloromethane (Chloroform) | 1.0 |
| Bromodichloromethane | 1.0 |
| Trichlorofluoromethane | 1.0 |
| Dichlorodifluoromethane | 1.0 |
| Chlorodibromomethane | 5.0 |
| 1,1 Dichloropropane | 5.0 |
| 1,2 Dichloropropane | 5.0 |
| 1,3 Dichloropropane | 1.0 µg/L |
| Hexachlorobutadiene | 1.0 µg/L |

2.15. Aliphatic Hydrocarbons

An occupier must not discharge trade waste containing aliphatic hydrocarbons C5 to C9 at a concentration greater than 1.0 mg/litre.

2.16. Esters

An occupier must not discharge trade waste containing a substance listed in Table G in a concentration greater than is listed for that substance-

TABLE G

| Substance | Maximum Allowable Concentration Milligrams per litre |
|---------------------|---|
| Ethyl Acrylate | 1.5 |
| Methyl Methacrylate | 30.0 |

2.17. Ethers

An occupier must not discharge trade waste containing diethylene glycol monobutyl ether (butyl carbitol) in a concentration greater than 2,000 mg/litre.

2.18. Other Organics

An occupier must not discharge trade waste containing a substance listed in Table H with a concentration greater than is listed for that substance.

TABLE H

| Substance | Maximum Allowable Concentration Milligrams per litre |
|-----------------|---|
| Glyphosate | 10 |
| Trifluralin | 10 |
| Epichlorohydrin | 0.3 |

2.19. Persistent Organochlorine Pesticides

- (a) An occupier must not discharge trade waste containing persistent organochlorine pesticides except in accordance with this paragraph.
- (b) An occupier must not discharge trade waste containing pesticides listed in Table I in a concentration greater than is listed for that pesticide.

TABLE I

| Substance | Maximum Allowable Concentration Milligrams per litre |
|------------|---|
| Aldrin | 0.001 |
| Chlordane | 0.006 |
| DDT | 0.003 |
| Dieldrin | 0.001 |
| Heptachlor | 0.003 |
| Lindane | 0.100 |

2.20. Halogenated Aromatic Hydrocarbons

- (a) An occupier must not discharge trade waste containing halogenated aromatic hydrocarbons, except in accordance with this paragraph.
- (b) An occupier must not discharge trade waste containing a substance listed in Table J in a concentration greater than is listed for that substance.

TABLE J

| Substance | Maximum Allowable Concentration Milligrams per litre |
|----------------------------------|---|
| Polychlorinated Biphenyls (PCBs) | 0.002 |
| Polybrominated Biphenyls (PBBs) | 0.002 |

2.21. Chlorodibenzo-p-dioxins and Chlorodibenzo-furans

- (a) An occupier must not discharge any trade waste containing any of the full range of chlorodibenzo-p-dioxin and chlorodibenzo-furan congeners, except in accordance with this paragraph.
- (b) Subject to paragraphs (c), (d) and (e), an occupier must not discharge trade waste containing any of the full range of chlorodibenzo-p-dioxin and chlorodibenzo-furan congeners in a concentration greater than the NATO total toxic equivalent of 40.0 ng/l.
- (c) Notwithstanding paragraph (b), the Authorised Person may at any time in writing require an occupier not to discharge trade waste containing any of the full range of chlorodibenzo-p-dioxin and chlorodibenzo-furan congeners in a concentration greater than the NATO total toxic equivalent of 20.0 ng/l.
- (d) Subject to paragraph (e), an occupier must not discharge trade waste containing any 2, 3, 7, 8 tetrachlorodibenzo-p-dioxin congeners in a concentration greater than the NATO total toxic equivalent of 20.0 ng/l.
- (e) Notwithstanding paragraph (d), the Authorised Person may at any time require an occupier not to discharge any 2, 3, 7, 8 tetrachlorodibenzo-p-dioxin congeners in a concentration greater than the NATO total toxic equivalent of 5.0 ng/l.

2.22. Headspace Air

An occupier must not discharge trade waste to a sewer, which at the nearest point of the sewer accessible by humans from the point of discharge, in any respect fails to comply with any relevant Work Safe Australia Exposure Standard relating to short term exposure levels.

2.23. Other Substances

An occupier must not discharge trade waste containing any substance not otherwise mentioned in this Schedule:

- (a) in a concentration no greater than 1µg/l; and
- (b) where the discharge or release of which to any element of the environment is restricted or prohibited by any legislation applying in Victoria; and
- (c) in quantities or of a quality that in the opinion of the Authorised Person would or is reasonably likely to endanger human life, compromise the safety of a person or of the works, or significantly adversely affect the operation of a sewage treatment plant or any part of the environment.