

Approved Acceptance Criteria

for discharge to the sewerage system

Sewage Quality
and Environment



Trade waste must comply with the Approved Acceptance Criteria set out in this document.

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1 Physical characteristics

1.1 Temperature

The Occupier must not discharge trade waste with a temperature greater than 38°C.

1.2 Solids

a) The Occupier must not discharge trade waste containing gross solids, suspended solids or total dissolved solids except in accordance with this clause.

b) 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.

c) Where the total mass load of suspended solids exceeds 1,000 kg/day, the concentration of suspended solids must not exceed 10,000 mg/litre.

d) The total mass load of total dissolved solids must not exceed 200 kg/day.

e) The 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) The Occupier must not discharge trade waste containing any free or floating layer of oil, fat or grease.

b) The 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) The 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 1,000 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) The 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) The Occupier must not discharge trade waste containing any free or floating layer of organic liquid.

b) The Occupier must not discharge any trade waste which, in the opinion of the Authorised Person, may be:

- (i) flammable, or
- (ii) toxic or otherwise harmful or damaging to any person, drain, the sewerage system, any sewage treatment process, or any element of the environment which receives effluent after it has been treated.

c) The Authorised Person may, in writing, authorise the Occupier to undertake an act which would otherwise contravene sub-clause (b).

1.5 Latex emulsions

a) In this 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 City West Water or 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) The Occupier may discharge trade waste containing a biodegradable stable latex emulsion.

c) The Occupier must not discharge trade waste containing a stable latex emulsion which is not biodegradable at a concentration greater than 1,000 mg/litre of total solids.

d) The Occupier must not discharge trade waste containing an unstable latex emulsion.

1.6 Radioactive waste

The Occupier must only discharge trade waste which complies in all respects with the *Health (Radiation Safety) Regulations 1984*, as amended from time to time.¹

1.7 Colour

The 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.

¹ The Occupier must only discharge trade waste which complies with all aspects of the current radiation regulations available from www.health.vic.gov.au.

2 Chemical characteristics

2.1 pH value

The 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

The 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

The 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 clause.
 - (ii) 200 mg/litre, where –
 - A) the trade waste discharge 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 Sulphur substances

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

2.5 Metals

- a) The Occupier must not discharge any element listed in Column 1 of Table A, except in accordance with this clause.
- 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 the Occupier may discharge.
- d) Where no entry is made in Column 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 the 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 the 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: Element	Column 2: Grams/day	Column 3: Grams/day	Column 4: 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
Molybdenum			10
Nickel	10	500	10
Selenium			10
Silver (based on analysis using aqua regis)	0.2	50	5
Thallium			20
Tin			10
Uranium (238)			30
Zinc	200	15 000	10

2.6 Halogens and halides

The 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	Maximum allowable concentration (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

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

2.8 Inhibitory chemicals

- (a) The Occupier must not discharge any trade waste which, when diluted to a 5% 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 sub-clause (a).

2.9 Organic acids

The 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

The 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 and their isomers	300
Trichlorophenol	50
Tetrachlorophenol	5
Pentachlorophenol	5

2.11 Aldehydes and ketones

The 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

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

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

2.13 Mononuclear aromatic hydrocarbon

The 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.

2.14 Halogenated aliphatic hydrocarbons

The 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
Chloroethene (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 ug/L
Methyl bromide	1.0 ug/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 ug/L
Hexachlorobutadiene	1.0 ug/L

2.15 Aliphatic hydrocarbons

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

2.16 Esters

The 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

The 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

The 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) The Occupier must not discharge trade waste containing persistent organochlorine pesticides, except in accordance with this clause.

(b) The Occupier must not discharge trade waste containing pesticides listed in Table I in a concentration greater than is listed for that pesticide.

Table I »

Pesticide	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) The Occupier must not discharge trade waste containing halogenated aromatic hydrocarbons, except in accordance with this clause.
- (b) The 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 (PCB's)	0.002
Polybrominated biphenyls (PBB's)	0.002

2.21 Chlorodibenzo-p-dioxins and chlorodibenzo-furans

- a) The 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 clause.
- b) Subject to sub-clauses (c), (d) and (e), the 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 sub-clause (b), the Authorised Person may at any time in writing require the 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 sub-clause (e), the 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 sub-clause (d), the Authorised Person may at any time require the 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

The 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 every 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 document:

- a) in a concentration greater than 1µg/l
- b) where the discharge or release of which to any element of the environment is restricted or prohibited by any legislation applying in Victoria
- 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.

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