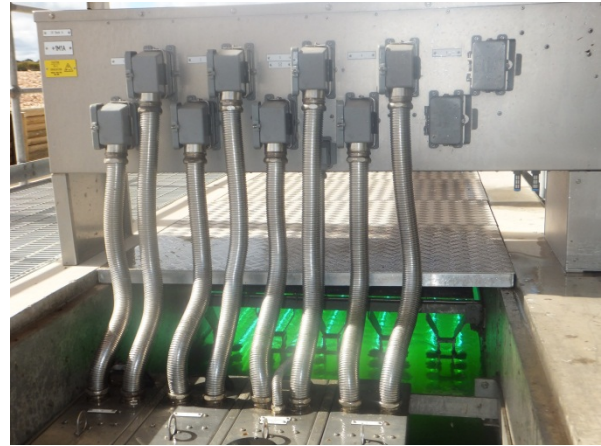




LOWER MURRAY URBAN AND RURAL WATER CORPORATION



TRADE WASTE

STATEMENT OF APPROVED ACCEPTANCE CRITERIA



AS OF

1ST OCTOBER 2011

LOWER MURRAY URBAN AND RURAL WATER CORPORATION

TRADE WASTE

STATEMENT OF APPROVED ACCEPTANCE CRITERIA

SECTION (A)

The nature and concentration level of the components and characteristics of any waste discharged to a sewer or drain, shall comply at all times with the standards and other requirements for the acceptance of such components and characteristics as are specified in this Statement of Approved Acceptance Criteria, except where the nature and levels of such components and characteristics are varied by Lower Murray Urban And Rural Water Corporation (LMW) in accordance with its Trade Waste Terms & Conditions.

1. PHYSICAL CHARACTERISTICS

1.1 Temperature:

The temperature shall not exceed 38 degrees Celsius.

1.2 Solids

- a) Gross solids must be able to pass through a bar screen with 13mm spaces between the bars.
- b) The Suspended Solids concentration shall not exceed 600 mg/L.
- c) The total dissolved solids concentration in any waste shall be subject to the approval of LMW having regard to the effect on sewage treatment process and plant effluent requirements.
- d) No fibrous material which in the opinion of LMW is likely to cause obstructions in the sewer or drain shall be present.

1.3 Oils and Greases

- a) There shall be no free or floating layer.
- b) Emulsified mineral oil, fat or grease which in the opinion of LMW is not biodegradable shall not exceed 200 mg/L as Trichlorotrifluoroethane extractable matter when the emulsion is stable at a temperature of 15 degrees Celsius, and when the emulsion is in contact with raw sewage within the range pH 4.5 to pH 10.0.
- c) Emulsified oil, fat or grease which in the opinion of LMW is biodegradable shall be permitted when the emulsion is stable at a temperature of 15 degrees Celsius, and when the emulsion is in contact with raw sewage within the range pH 4.5 and pH 10.0.
- d) Emulsified oil, fat or grease shall not exceed 100 mg/L as Trichlorotrifluoroethane extractable matter when the emulsion is unstable at a temperature of 15 degrees Celsius and when the emulsion is in contact with raw sewage within the range of pH 4.5 and pH 10.0.

1.4 Organic Liquids

- a) There shall be no free layer of organic liquids.
- b) No waste which may be flammable, explosive or toxic to any person, to sewage treatment process of LMW, or to the environment receiving treated effluent or may be harmful to the composition of the sewer or other equipment comprising the sewerage system shall be discharged to a sewer or drain without the written approval of LMW.

1.5 Resins

The concentration of natural or synthetic resins, plastic monomers, synthetic adhesives, unstable rubber or plastic emulsions or any like material shall not exceed those permitted by LMW.

1.6 Latex Emulsions

- (a) In this clause -

“biodegradable” in relation to trade waste means that, in the opinion of Lower Murray Water, the total organic carbon content of the trade waste would decrease by at least 90% when submitted to the sewage treatment process employed by the Company 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 degrees Celsius; and
 - (ii) is in contact with raw sewage and the resulting mixture has pH no less than 4.5 and no greater than 10.0.
- (b) The Customer may discharge trade waste containing a biodegradable stable latex emulsion.
 - (c) The Customer 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 Customer must not discharge trade waste containing an unstable latex emulsion.

1.7 Radioactivity

Wastes shall comply with the standards specified in the Health (Radiation Safety) Regulations 1984, made pursuant to the provisions of the Health Act 1958, as amended from time to time.

2. CHEMICAL CHARACTERISTICS

2.1 pH Value

The pH value shall be within the range: 6.0 to 10.0 (unless otherwise varied by LMW).

2.2 Organic Strength

The Chemical Oxygen Demand concentration shall not exceed - 1800 mg/L.

2.3 Nutrients

The concentration of Total Kjeldahl Nitrogen shall not exceed 200 mg/L and the concentration of Phosphorus shall not exceed 20 mg/L. These levels may be varied by LMW having regard to the effect on sewage treatment process and plant effluent requirements.

2.4 Corrosive and Toxic Substances

The maximum allowable concentrations in milligrams per litre of corrosive and toxic substances shall be as stated in Table A.

TABLE – A

Substance	Maximum Allowable Concentration, mg/L
Ammonia plus ammoniacal ion, expressed as N	50
Arsenic	1
Bromine as Br ₂	5
Chlorine as Cl ₂	5
Cyanide as CN	10
Fluoride	30
Iodine as I ₂	5
Phenol and chemical derivatives of phenol (as phenol)	100
Sulphates	200
Sulphide as S	1
Sulphite as S	8
Thiosulphate as S	20

Where Sulphite and Thiosulphate are both present in the waste stream:

Sulphite as S plus 0.4 times Thiosulphate as S	8
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2.5 Metals

The discharge shall not exceed the maximum allowable concentration specified in Table B.

TABLE – B

Element	Maximum Allowable Concentration, mg/L
Aluminium	100
Barium	150
Beryllium	30.0
Boron	25.0
Cadmium	2.0
Chromium	10.0
Cobalt	10.0
Copper	10.0
Iron	30.0
Lead	10.0
Manganese	10.0
Mercury	0.05
Molebdenum	10.0
Nickel	10.0
Selenium	5.0
Silver	2.0
Thallium	20.0
Tin	10.0
Uranium (238)	30.0
Zinc	10.0

2.6 Methylene Blue Active Substances shall not exceed

500 mg/L.

2.7 Inhibitory Chemicals

No waste when diluted to a 5 per cent solution with sewage shall cause an appropriate microbiological sewage treatment process, as determined by LMW, to be inhibited by more than 20 per cent.

2.8 Organic Acids

The Customer 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.

2.9 Phenolic Substances

The Customer 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, mg/L
Sum of phenol, monochlorophenol, dichlorophenol and their isomers	300
Trichlorophenol	50
Tetrachlorophenols	5
Pentachlorophenol	5

2.10 Aldehydes and Ketones

The Customer 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, mg/L
Acetone	50
Acrolein	0.1
Formaldehyde (expressed as HCHO)	200

2.11 Nitriles

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

2.12 Mononuclear Aromatic Hydrocarbons

The Customer must not discharge trade waste containing a mononuclear aromatic hydrocarbon listed in Table E in a concentration greater than is listed for the substance.

Table – E

Substance	Maximum Allowable Concentration, mg/L
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 Halogenated Aliphatic Hydrocarbons

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

Table – F

Substance	Maximum Allowable Concentration, mg/L
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
Chloromethane (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

2.14 Aliphatic Hydrocarbons

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

2.15 Esters

The Customer 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, mg/L
Ethyl Acrylate	1.5
Methyl Methacrylate	30.0

2.16 Ethers

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

2.17 Other Organics

The Customer 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, mg/L
Glyphose	10
Trifluralin	10
Epichlorohdrin	0.3

2.18 Persistent Organochlorine Pesticides

- (a) The Customer must not discharge trade waste containing persistent organochlorine pesticides, except in accordance with this paragraph.
- (b) The Customer 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, mg/L
Aldrin	0.001
Chlordae	0.006
DDT	0.003
Dieldrin	0.001
Heptachlor	0.003
Lindane	0.100

2.19 Halogenated Aromatic Hydrocarbons

- (a) The Customer must not discharge trade waste containing halogenated aromatic hydrocarbons, except in accordance with this paragraph.
- (b) The Customer 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, mg/L
Polychlorinated Biphenyls (PCB's)	0.002
Polybrominated Biphen Is PBB's	0.002

2.20 Chlorodibenzo-p-dioxins and Chlorodibenzo-furans

- (a) The Customer 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 sub-paragraphs (c), (d) and (e), the Customer 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-paragraph (b), Lower Murray Water may at any time in writing require the Customer not to discharge any 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 paragraph (e), the Customer must not discharge trade waste containing any 2,3,7 or 8 tetrachlorodibenzo p dioxin congeners in a concentration greater than the NATO toxic equivalent of 20.0 ng/L.
- (e) Notwithstanding sub-paragraph (d), Lower Murray Water may at any time require the Customer 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.

2.21 Headspace Air

The Customer 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.

2.22 Other Substances

A Customer must not discharge trade waste containing any substance not otherwise mentioned in this Schedule:

- (a) in a concentration no greater than 1 µg/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 Lower Murray Water 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.

These levels may be varied by LMW having regard to the effect on sewage treatment process, plant effluent requirements and soils which are required to be monitored for Environment Protection Authority licensing conditions.

SECTION (B)

The nature and levels of the components and characteristics of any waste discharged to a sewer or drain shall comply at all times with the standards and other requirements for the acceptance of such components and characteristics agreed to by LMW and included in the agreement/licence.

In the case where specific substances or characteristics are not contained in Section A, LMW shall consider these on an as needs basis.

20th December, 1995.

Amended 4th April, 1997.

Amended 4th September, 2003.