

WESTERN
WATER



Acceptance criteria for Trade Waste Discharge to the Sewerage System

October 2011



Introduction

Trade waste is any liquid waste, other than domestic sewage, that is generally generated by industrial and commercial business activities and discharged to the sewerage system. Western Water necessarily limits the quality and other characteristics of trade waste it accepts into the sewerage system to ensure:

- the safety of personnel working on the sewerage system
- the protection of the integrity of the sewerage system infrastructure
- wastewater treatment processes operate normally
- protection of the environment
- the quality of reuse products (recycled water and biosolids) are protected.

The limits are known as “Trade Waste Acceptance Criteria” and any trade waste meeting these criteria will normally be suitable for discharge to the sewerage system.

Any variation to these limits may be considered by Western Water on a case by case basis and must be made in the form of a Trade Waste Agreement or Consent approved by Western Water.

Western Water’s Trade Waste Acceptance Criteria are made pursuant to Western Water’s Trade Waste By-Law and the Water Act 1989.

Physical characteristics

	Acceptance criteria (mg/L)
pH	6 - 9
Total oil and grease	100
Colour	100 Pt-Co

Temperature

- Must not exceed 38°C

Total oil/grease

- The customer must not discharge any free floating layer of any organic liquid.

Gross solids

- Gross solids containing trade waste must be able to pass through a bar screen with 13mm spaces between bars and have a settling velocity of not more than 3m/h.

Colour

- For trade waste with colour wavelengths not compatible with Platinum Cobalt standard, Western Water will apply a limit of 100 ADMI units.

Odour

- Must not be detectable in 1 per cent dilution or cause an odour problem in Western Water’s sewerage system.



Solids and salts

	Acceptance criteria (mg/L)	Acceptance criteria (kg/day)
Total dissolved solids (TDS)		200
Suspended solids	400	
Sodium Adsorption Ratio	5	
Sodium	200	

Total dissolved solids (TDS)

TDS excludes dissolved organic salts. Western Water may, in some circumstances, include a daily allowed mass load based on one or more of the following:

- treatment plant capacity
- biosolids limits
- EPA licence limits
- soil characteristics
- other limitations which Western Water considers appropriate

The applicable concentration will be determined using the daily allowed mass load as specified in the Trade Waste Agreement. For monitoring and control purposes Western Water may specify an electrical conductivity standard.

Suspended solids

The concentration of suspended solids must not exceed 400 mg/L, unless otherwise specified in the Trade Waste Agreement. Western Water, in some circumstances, may allow a higher concentration for suspended solids and additional charges will apply.

Surfactants - Methylene blue active substances (MBAS)

	Acceptance criteria (mg/L)
Anionic surfactants (MBAS)	100
Non-ionic surfactants	100



Sulphur substances

	Acceptance criteria (mg/L)
Total oxidised sulphur	100
Sulphide	0.3
Total mercaptans	0.5
Dimethyl sulphide	1

Total oxidised sulphur

For the purposes of this standard, total oxidised sulphur means the chemical substances expressed as S and known as Sulphates, Sulphites and Thiosulphate. Western Water, in some circumstances, may include a daily allowed mass load for sulphur compounds on the basis of one or more of the following:

- domestic wastewater mass load
- safety of personnel
- sewer asset protection for individual catchments which Western Water considers appropriate.

In such instances, the Customer must also meet the specific concentration of sulphur as specified in the Trade Waste Agreement.

Radioactive substances

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

Headspace

The customer must not discharge trade waste to the sewer, which at it the nearest point of the sewer accessible by humans from the discharge, fails to comply with Work Safe Australia Exposure Standards relating to short-term exposure.

Nutrients

	Acceptance criteria (mg/L)
Ammonia	50
Total Kjeldahl Nitrogen (TKN)	60
Phosphorous	30

Nitrogen

Western Water, in some circumstances, may include a daily allowed mass load for nitrogen compounds in a Trade Waste Agreement. It may be determined on the basis of one or more of the following:

- domestic wastewater mass load
- safety of personnel
- sewer asset protection for individual catchments which Western Water considers appropriate.

In such instances, the customer must also meet the specific concentration of nitrogen as specified in the Trade Waste Agreement.

Other organic substances

	Acceptance criteria (mg/L)
Acrylonitrile	1
Cyanide	1
Triethylamine	1
Trimethylamine	1

Inhibition

The customer must not discharge any trade waste which, when diluted to a 5 per cent solution with sewage, would inhibit the microbiological sewage treatment process by more than 20 percent.



Organic strength

	Acceptance criteria (mg/L)
Biochemical oxygen demand (BOD)	400

Biochemical oxygen demand (BOD)

The concentration of BOD must not exceed 400 mg/l, unless otherwise specified in the Trade Waste Agreement. Western Water, in some circumstances, may allow higher concentration for BOD based on one or more of the following:

- suspended solids limits
- treatment plant capacity
- odour potential
- asset protection
- biogas production potential
- EPA licence limits
- other limitations which Western Water considers appropriate.

In such instances additional charges will apply. Western Water may also specify a maximum allowable load standard for BOD in the event trade waste mass load allocation for the treatment plant has reached a critical level.

Chemical oxygen demand (COD)

Western Water, in some circumstances, may specify an acceptable standard for COD on a site specific basis and the concentration will be determined on the basis of biochemical oxygen demand.

Phenolic substances

	Acceptance criteria (mg/L)
Phenolic compounds (non- halogenated)	1
Sum of chlorinated phenolics	0.1

Aldehydes and ketones

	Acceptance criteria (mg/L)
Acetone	50
Acetaldehyde	5
Propionaldehyde	5
Acrolein	0.05
Furfural	4
Formaldehyde	30
Methyl Ethyl Ketone	1

Halogens and halides

	Acceptance criteria (mg/L)
Bromine	1
Chlorine	5
Fluoride	30
Iodine	1
Chloride	200

Mononuclear aromatic hydrocarbons

	Acceptance criteria (mg/L)
Benzene	0.04
Cumene	0.4
Dinitrotoluene	20
Ethylbenzene	1
Nitrotoluene	5
Styrene	0.15
Toluene	0.5
Total Xylenes	1

Aliphatic hydrocarbons

	Acceptance criteria (mg/L)
Aliphatic Hydrocarbons (C5 to C9)	1
Total Petroleum Hydrocarbons (>C9)	30

Esters

	Acceptance criteria (mg/L)
Ethyl Acrylate	1.2
Methyl Methacrylate	30

Halogenated aliphatic hydrocarbons

	Acceptance criteria (mg/L)
1,2 Dichloroethane	5
1,1,1 Trichloroethane	0.6
1,1,2 Trichloroethane	1.1
1,1,2,2 Tetrachloroethane	0.5
Hexachlorethane	0.1
Chloroethane	0.5
1,2 Dichloroethylene	5
Trichloroethylene	0.1
Tetrachloroethylene	0.01
Carbon Tetrachloride	0.03
Methylene Chloride	2
Methyl Chloride	0.001
Methyl Bromide	0.001
Trichloromethane (Chloroform)	0.1
Trichlorofluoromethane	1
Dichlorodifluoromethane	0.04

Pesticides

	Acceptance criteria (mg/L)
Organophosphorous pesticides	0.1



Metals

	Acceptance criteria (mg/L)
Aluminium	100
Arsenic	1
Barium	5
Beryllium	30
Boron as B	5
Cadmium	1
Chromium (excludes Hexavalent Chromium)	3
Cobalt	5
Copper	5
Iron	10
Lead	1
Manganese	10
Mercury	0.005
Molybdenum	5
Nickel	1
Selenium	0.4
Silver	1
Tin (excludes Organotin compounds)	5
Zinc	1

Daily allowed mass load

Western Water, in some circumstances, may include a daily allowed mass load for metals in a Trade Waste Agreement. It may be determined on the basis of one or more of the following:

- biosolids beneficial use
- domestic wastewater mass load
- trade waste mass load allocation
- number of metal dischargers for individual catchments which Western Water considers appropriate.

In such instances, the Customer must meet the specific concentration of metals as specified in the Trade Waste Agreement.



Prohibited substances

The customer must not discharge trade waste containing any substance not otherwise mentioned in this Acceptance Standards unless specifically authorised under a Trade Waste Agreement.

The following substances must not be discharged:

- a. Fibrous material that, in the opinion of Western Water, is likely to cause obstructions in a drain or sewer.
- b. Latex, paint, adhesives, rubber or plastic.
- c. Flammable or explosive substances, unless the customer has demonstrated to the satisfaction of Western Water that there is no possibility of explosion or fires occurring in the sewerage system. In all cases the trade waste discharge must not exceed 5 per cent of the lower explosive limit (LEL) at 25°C.
- d. Medical, clinical, surgery, veterinary, laboratory, or other pathological waste.
- e. Waste required to be rendered non-infectious prior to discharge.
- f. Waste considered by Western Water to be a threat to the health or safety of operations and maintenance personnel or the community.
- g. Any genetically engineered organisms or mutant bacteria.



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