Liquid Trade Waste

Acceptance limits and prohibited substances

Definition

Liquid trade waste (LTW) is any discharge to a sewerage system other than domestic waste from a hand wash basin, shower, bath or toilet.

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Central Coast Council is referred to as Council.

Introduction

This Fact Sheet is provided to assist you to treat and dispose of liquid trade waste in an efficient and approved manner.

For further information, please contact Council's Trade Waste Section on 4306 7900.

For LTW application forms, refer to www.centralcoast.nsw.gov.au.

Effluent Improvement Programs

Where there is an existing liquid trade waste discharge and the quality or volume does not meet Council's acceptance limits, the applicant is required to submit an 'Effluent Improvement Program' setting out how Council's requirements will be met. The Effluent Improvement Program must detail the methods and actions proposed to achieve the acceptance limits, and a timetable for implementation of the proposed actions. Such actions may include more intensive monitoring, or improvements to work practices and/or pre-treatment facilities to improve the discharge quality and reliability.

Acceptance Limits

General Acceptance Limits

| Parameter | Limits | |
|---------------------------------|---|--|
| Flow rate | The maximum daily and instantaneous rate of discharge (kL/h or L/s) is set on the available capacity of the sewer. Large dischargers are required to provide a balancing tank to even out the load on the sewerage works. | |
| BOD₅ and suspended solids | Normally, approved at 300 mg/L for each of the parameters. Concentration up to 600 mg/L may be accepted. | |
| COD | Normally, not to exceed BOD5 by more than three times. This ratio is given as a guide only to prevent the discharge of non-biodegradable waste. | |
| Total dissolved solids | Up to 4000 mg/L may be accepted. Acceptance limits may be reduced depending on available effluent disposal options and will be subject to a mass load limit. | |
| Temperature | Less than 38°C | |
| рН | Within the range of 7.0 to 9.0 | |
| Oil and Grease | 100 mg/L if the volume of the discharge does not exceed 10% of the design capacity of the treatment works, and 50 mg/L if the volume is greater than 10%. | |
| Detergents | All industrial detergents are to be biodegradable. A limit on the concentration of 50 mg/L (as MBAS) may be imposed on large liquid trade wastes. | |
| Colour | Colour must be biodegradable. No visible colour when diluted to the equivalent dilution afforded by domestic sewage flow. | |
| | Specific limits may be imposed on industrial discharges where colour has a potential to interfere with sewerage treatment processes and the effluent management. | |
| Radioactive substances | If expected to be present (e.g lodine 131 from ablation), acceptance requirements will be set on a case-by-case assessment. | |

| Inorganic compounds | | Organic compounds | |
|---------------------------|------------------------------------|--|------------------------------------|
| Parameter | Maximum concentration (mg/L) | Parameter | Maximum concentration (mg/L) |
| Ammonia (as N) | 50 | Benzene | < 0.001 |
| Boron | 5 | Toluene | 0.5 |
| Bromine | 5 | Ethylbenzene | 1 |
| Chlorine | 10 | Xylene | 1 |
| Cyanide | 1 | Formaldehyde | 30 |
| Fluoride | 30 | Phenolic compounds non-halogenated | 1 |
| Nitrogen (total Kjeldahl) | 100 | Petroleum hydrocarbons ₁ | |
| | | 1. C6-C9 (flammable) | 5 |
| | | 2. Total Recoverable Hydrocarbons (TRH) | 30 |
| Phosphorus (total) | 20 | Pesticides general (except organochlorine | 0.1 |
| | | | |

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| Sulphate (as SO ₄) | 500 |
|--------------------------------|-----|
| Sulphide (as S) | 1 |
| | |

| and organophosphorus) | |
|--|---|
| Polynuclear aromatic hydrocarbons (PAHs) | 5 |
| | |

1 Always ask a laboratory to carry out a silica gel clean up, if other than petroleum products are expected to be present liquid trade waste sample, eg. Animal fats, plant oil, soil, etc.

Metals Parameter Maximum Concentration (mg/L) Allowed daily mass limits (g/d) Aluminium 100 Arsenic 0.5 2 Cadmium 1 5 Chromium* 3 10 Cobalt 5 15 Copper 5 15 Iron 100 _ Lead 1 5 Manganese 10 30 0.05 0.01 Mercury 5 Molybdenum 15 Nickel 1 5 Selenium 1 5 2 5 Silver Tin 5 15 Zinc 5 1 Total metals excluding aluminium, iron, Less than 30mg/L and subject to total mass loading manganese requirements

* Where hexavalent chromium (Cr^{6+}) is present in the process water, pre-treatment is required to reduce it to the trivalent state (Cr^{3+}), prior to discharge into the sewer.

Note: These limits will generally not be met if the sewage detention time in the pumping station and rising main is greater than 2 to 4 hours, unless the sewage is conditioned by the addition of oxygen or other agent to prevent the generation of hydrogen sulphide gas.

| Decinea concentration of Substances in admessie serverage | | | |
|---|----------------------|--|--|
| Substances | Deemed Concentration | | |
| | (mg/L) | | |
| Biochemical Oxygen Demand (BOD ₅) | 300 | | |
| Suspended Solids | 300 | | |
| Total Oil and Grease | 50 | | |
| Ammonia (as Nitrogen) | 35 | | |
| Total Kjeldahl Nitrogen | 50 | | |
| Total Phosphorus | 10 | | |
| Total Dissolved Solids | 1000 | | |
| Sulphate (SO ₄) | 50 | | |

Deemed concentration of substances in domestic sewerage

Prohibited Substances

Prohibited substances

Organochlorine weedicides, fungicides, pesticides, herbicides and substances of a similar nature and/or wastes arising from the preparation of these substances

Organophosphorus pesticides and/or waste arising from the preparation of these substances

Per- and poly-fluoroalkyl substances (PFAS)

Any substances liable to produce noxious or poisonous vapours in the sewerage system

Organic solvents and mineral oil[#]

Any flammable or explosive substance[#]

Discharge from "Bulk Fuel Depots"

Discharges from chemicals and/or oil storage areas

Natural or synthetic resins, plastic monomers, synthetic adhesives, rubber and plastic emulsions

Roof, rain, surface, seepage or ground water, unless specifically permitted (clause 137A of the Local Government (Genera) Regulation 2021)

Solid matter[#]

Disposable products including wet wipes, cleaning wipes, colostomy bags, cat litter and other products marketed as flushable

Any substance assessed as not suitable to be discharged into the sewerage system

Liquid Waste that contains pollutants at concentrations which inhibit the sewerage treatment process – refer *Australian Sewage Quality Management Guidelines, June 2012, WSAA*; and any other substances listed in a relevant regulation

#In excess of the approved limit



Factors for consideration

Council's decision to accept liquid waste into its sewerage system will be based on the discharger satisfying Council's requirements. Therefore, when determining an application to discharge liquid waste to the sewerage system, Council will consider the following factors:

- The potential impacts of the proposed discharge on Council's ability to meet the objectives outlined in s. 1.2 of this document.
- The adequacy of the pre-treatment process(es) to treat the liquid trade waste to a level acceptable for discharge to the sewerage system, including proposed contingency measures in an event of the pre-treatment system failure
- The capability of the sewerage system (reticulation and treatment components) to accept the quantity and quality of the proposed liquid waste
- The adequacy of chemical storage and handling facilities, and the proposed safeguards for prevention of spills and leaks entering to the sewerage system
- The adequacy of the proposed due diligence program and contingency plan, where required.
- Proposed management of prohibited substances and other liquid waste not planned to be discharged to the sewerage system and safeguards to avoid any accidental discharge
- The potential for stormwater entering the sewerage system and adequacy of proposed stormwater controls
- The potential for growth of the community