



Hawkesbury City Council

Attachment 1
to
item 268

Draft Liquid Trade Waste Policy

date of meeting: 29 November 2011

location: council chambers

time: 6:30 p.m.



Hawkesbury City Council

Hawkesbury City Council
Policy

DRAFT

Liquid Trade Waste
Policy

(Version 1)

Adopted by Council at the
Ordinary Meeting Held on
<<insert date when adopted>>



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1.0 PURPOSE

Sewerage systems are generally designed to cater for waste from domestic sources that are essentially of predictable strength and quality. Council *may* accept liquid trade waste into its sewerage system as a *service* to businesses and industry providing that the waste meets certain minimum standards. Liquid trade waste may exert much greater demands on sewerage systems than domestic sewage and, if uncontrolled, can pose serious problems to the treatment process and hence public health, worker safety, infrastructure and the environment.

Impacts of poor liquid trade waste management include:

- Grease, oil, solid material, if not removed at its origin can cause blockages in the sewerage system and result in overflows of untreated sewage to the environment.
- Strong waste may cause odour problems and corrosion of sewer mains, pumping stations and sewage treatment facilities.

This policy is concerned with compliance of Schedules 'A' & 'B' for liquid trade wastes discharged into Council's sewerage system. It has been developed to ensure the proper control of liquid trade waste discharged to the sewerage system and hence protection of public health, worker safety, the environment, and Council's sewerage system. Schedules 'A' & 'B' have been adopted from the acceptance guidelines published by the NSW Office of Water. They have been adjusted to reflect the discharge licenses for South Windsor and Mcgraths Hill treatment plants.

A person wishing to discharge liquid trade waste to the sewerage system must, under section 68 of the *Local Government Act 1993*, obtain prior approval from Council. Discharging liquid trade waste without an approval is an offence under section 626 of the Act.

The procedure for approval is governed by Chapter 7 of the *Local Government Act 1993* and is subject to the *Local Government (General) Regulation 2005*.

2.0 SCOPE

OBJECTIVES

Safety

- To protect public health;
- To protect the health and safety of Council employees and contractors;

Protection of Assets

Protect sewerage system infrastructure (all components of it) to ensure that:

- The structural and/or hydraulic integrity of the system will not be adversely affected;
- The operation of the system is not compromised or interfered with;
- The intended lives of all components of the sewerage system infrastructure are not unreasonably diminished.

Protection of Treatment Processes

To ensure that:

- That the treatment plant processes remain capable of treating the wastestream to the required standards for disposal or reuse.



Environment

- To protect the environment from the discharge of waste that may have a detrimental effect;
- To provide an environmentally responsible liquid trade waste management service to the non-residential sector;
- To encourage waste minimisation and cleaner production in the commercial and industrial sectors;
- To promote water conservation;
- To ensure that reuse of the sewage treatment works effluent or biosolids is feasible;

Legal

- To ensure the liquid trade waste discharge complies with Schedules ‘A’ & ‘B’ and any special conditions of agreement;
- To assist Council to meet its statutory obligations.

SCHEDULE ‘A’

Maximum Standards and Daily Mass Limits for Acceptance of Liquid Trade Waste to Sewers

Item	Maximum Standard (mg/L)	Cat. 1b & 2 Daily Mass Limits (grams)
Biochemical Oxygen Demand (BOD ₅)	250	200 1b only
Suspended Solids (SS)	200	160 1b only
Total Grease and Oil (G&O)	50	40 1b only
pH	Between 7 and 10	
Temperature	Not to Exceed 38°C	
Colour	Not Noticeable in 100 Dilutions	
Odour	See Note 2	
Gross Solids	See Note 3	
COD and TOC Tests	See Note 4	
MBAS	50	See Note 5
Radioactive Substances	See Note 9	

Nutrients

Ammonia (as N)	32	25
Nitrogen (N) (Total Kjeldahl Nitrogen)	40	32
Phosphorus Compounds (as total P)	10	8



Heavy Metals *

Item	Maximum Standard (mg/L)	Cat. 1b & 2 Daily Mass Limits (grams)
Aluminium (Al)	50	40
Arsenic (As)	1	0.8
Cadmium (Cd)	1	0.8
Chromium (Cr) Total (see note 6)	3	2.4
Cobalt (Co)	5	4
Copper (Cu)	5	4
Iron (Fe)	50	40
Lead (Pb)	1	0.8
Manganese (Mn)	10	8
Mercury (Hg)	0.02	0.016
Molybdenum (Mo)	5	4
Nickel (Ni)	3	2.4
Selenium (Se)	1	0.8
Silver (Ag)	2	1.6
Tin (Sn)	5	4
Uranium (U)	5	4
Zinc (Zn)	5	4

* Total heavy metal concentration, excluding iron, aluminium, manganese and molybdenum is to be less than 30mg/L and may be subject to mass loading requirements.

**Other Substances**

Item	Maximum Standard (mg/L)	Cat. 1b & 2 Daily Mass Limits (grams)	
Barium (Ba00)	2	1.6	
Benzene	0.04	0.032	
Biocides (non oxidising)	See Note 6		
Boron (B)	5	4	
Bromine (Br)	5	4	
Halogenated Hydrocarbons	2	1.6	
Chlorine (Cl) total available as in hypochlorite	10	8	
Chromate (Cr ⁺⁶)(as in cooling towers)	See Note 6		
Cyanide (Cn)	1	0.8	
Ethyl benzene	1	0.8	
Fluoride (F ⁻)	20	16	
Formaldehyde (HCHO)	30	24	
Halogenated Aliphatic Compounds	5	4	
Herbicides, Defoliant, Weedicides	Prohibited see Schedule B		
Mercaptans	1	0.8	
Organoarsenic Compounds	Prohibited see Schedule B		
Pentachlorophenol	0.05	0.04	
Phenolic Compounds (other than above)	10	8	
Pesticides (including toxic by-products)	Prohibited see Schedule B		
Polynuclear Aromatic Hydrocarbons	5	4	
Petroleum Hydrocarbons (non-flammable)	30	24	
Sulphur Compounds	sulphates SO ₄ ⁻	100	80
	sulphites SO ₃ ⁻	15	12
	sulphide S ⁻	1	0.8
Thiosulphate	15	12	
Toluene	0.5	0.4	
Xylene	1	0.8	



NOTES TO SCHEDULE 'A'

1. Biochemical Oxygen Demand and Suspended Solids having a maximum of 250mg per litre and 200mg per litre respectively can be accepted. Higher concentrations at low volume loads can be accepted as long as the net result does not exceed the scheduled mass load for Category 1b and 2. Category 3 and 4 applicants may discharge higher mass loads while space is available in the treatment plant, however they will be charged for the excess BOD or SS and must submit a waste improvement program.
2. Acceptable levels of odour are at the discretion of the investigating officer.
3. Non-faecal gross solids must be less than 20mm in any dimension and have a quiescent settling velocity of less than 3 metres per hour.
4. The concentration of oxygen demanding effluent is specified in terms of BOD₅, which is the accepted standard test. However, if a reliable correlation can be shown to exist between BOD₅ and another test such as COD or TOC; results based on the alternative test may be accepted.
5. MBAS refers to Methylene Blue Active Substances and is a measure of surfactant activity in detergents. All industrial or commercial detergents must be low or no phosphate, biodegradable and 'quick break' brands.
6. The use of products containing hexavalent chromium (chromate) compounds in comfort air conditioning cooling towers and evaporative condensers, where the blow down or bleed off is connected to Council's sewerage system is strictly prohibited. In addition, any non-oxidising biocides must be registered with the NSW Department of Agriculture and Fisheries for use in such comfort air conditioning, cooling towers and evaporative condensers.
7. Comfort Cooling Towers are defined as cooling towers that are dedicated exclusively to and are an integral part of heating, ventilation, air conditioning or refrigeration systems.
8. Discharge from cyanide baths will be accepted only after detoxification. The acceptable level of 1mg per litre refers to rinse water only. Cyanide is defined as cyanide that can be destroyed by alkaline chlorination.
9. Total Grease and Oil for categories other than **1a** refers to the total make up of the components of the pollutant, this includes petroleum hydrocarbons (non flammable), chlorinated hydrocarbons, phenolic compounds etc. The concentration of each component must not exceed the scheduled maximum standard and the combined total must not exceed 50mg per litre.
10. The discharge must comply with the *Radiation Control Act 1990*.



SCHEDULE 'B'

Prohibited Substances

The following substances are not permitted to be discharged into the sewerage system:

- Infectious or contagious solid or liquid wastes.
- Any flammable or explosive substances.
- Organic solvents and mineral oil.
- Natural or synthetic resins, plastic monomers, synthetic adhesives and rubber plastic emulsions.
- 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 wastes arising from the preparation of these substances.
- Discharges from 'Bulk Fuel Depots'.
- Hexavalent Chromium (chromate) inhibitors and any other non-oxidising biocide.
- Solid matter (see Schedule 'A', Note 3).
- Roof, rain, surface, flood, seepage, sub-soil water, uncontaminated cooling and boiler blowdown water.
- Any substance likely to cause injury to personnel employed to work in the sewerage system.
- Any substance likely to damage the environment into which the sewage effluent is discharged.
- Any substance liable to produce noxious or poisonous vapours.
- Any substance assessed as not suitable to be discharged into the sewerage system.
- Waste liquids that contain pollutants at concentrations which inhibit the sewage treatment process- refer *Guidelines for Sewerage Systems: Acceptance of Trade Waste (Industrial Waste)*, ARMCANZ/ANZECC, 1994.
- Any other matter excluded from sewers by the *Local Government (General) Regulation 2005*.

Any other substance listed in a relevant regulation.

3.0 DEFINITIONS

Liquid Trade Waste

Liquid trade waste is defined as any discharge directed to the sewerage system from a premise zoned or used for business, commercial or an industrial purpose. This also includes discharge from a commercial septic or holding tank, a mobile trade activity as well as any commercial activity carried out at a residential premise.

4.0 TRAINING REQUIRED

- 4.1 Training and refresher sessions will be arranged from time to time in conjunction with the Department of Environment and Heritage for relevant Council officials on the contents and implementation of this policy.



5.0 AMENDMENTS

Council reserves the right to review, vary or revoke this Policy. Amendments to the Policy other than amendments due because of legislative changes will be reported to Council.

6.0 PROCEDURE

Procedures are outlined in detail in Part 2 – Liquid Trade Waste Categories and Procedures.

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