

# AUTOMOTIVE/ENGINEERING INDUSTRY TRADE WASTE

Water Supply (Safety and Reliability) Act 2008  
Trade Waste Management Plan 2019



## TRADE WASTE APPROVAL

Any discharge to sewer from a trade waste generating activity requires a trade waste approval.

Examples of trade waste generating activities in the engineering, automotive or mechanical industries include:

- » degreasing and washing of engines, gearboxes and automotive parts
- » washing of workshop floors contaminated with hydrocarbons, grease and oils
- » washing of motor vehicles, trucks and heavy machinery
- » rub down and paint scrapings from panel and smash repair shops
- » waste from the flushing of radiators and engine blocks – after the coolant/glycol has been removed as these are prohibited substances.

## PROBLEMS WITH OILY WASTE

Wastewater from automotive and engineering industries can be high in oils and oily sludges. This can cause problems when discharged to the sewerage system, including:

- » the formation of deposits of oily solids, reducing sewer capacity and causing blockages and overflows
- » the generation of volatile compounds in the sewerage network, which is a safety risk for workers
- » damage to sensitive treatment membranes, resulting in poor effluent quality and costly repairs
- » damage to pumps from sludgy wastes.

## PRE-TREATMENT OF OILY WASTE

Oily trade waste must be pre-treated before being discharged to the sewer. The pre-treatment system must be adequately sized and designed for the removal of petroleum oil and silt.

The council preferred oil and silt removal system includes:

- » 100L silt trap
- » holding tank (volume equal to or greater than oil separator capacity)
- » non-emulsifying pump, sized so as not to exceed oil separator capacity
- » oil water separator (coalescing plate or vertical gravity), to be sized according to rate of inflow (see manufacturer's specification)
- » waste oil collection.

If detergents are being used as part of the pre-treatment process, then such detergents must be 'quick breaking' to rapidly break the emulsion and improve oil separation in the pre-treatment system.

Detergents are considered quick breaking if the emulsion breaks (the oil separates from the water) within 30 minutes.

## SEWER ADMISSION LIMITS

To protect the sewerage system and worker safety, council requires that oily wastewater is pre-treated by the business so that:

- » oils and grease are less than 200 mg/L
- » petroleum hydrocarbons are less than 30 mg/L
- » total suspended solids are less than 1000 mg/L
- » chemical oxygen demand (COD) is less than 3000 mg/L.

## PROHIBITED TRADE WASTE TO SEWER

Flammable or volatile liquids can cause fires or explosions in sewerage systems, and are a danger to our workers. They cannot be accepted into the sewer system. The following wastes are regulated wastes that must be disposed off-site at a licensed treatment and disposal facility:

- » raw or depleted degreasing substances or baths of detergent cleaners
- » hydrocarbon cleansers
- » caustic soda
- » phenol/cresol solutions
- » cresylic acid
- » chlorinated hydrocarbons.

Coolant and radiator fluid (glycol) has a particularly high organic strength and is normally not permitted to sewer. Instead, these fluids should be handled and disposed of in the same manner as your waste oils.

Stormwater is not permitted to sewer. All wash bays must be roofed, or banded with stormwater diversion controls. For more information, refer to the *Stormwater management* information sheet.

## HOUSEKEEPING

Housekeeping methods that can be employed to reduce the trade waste load to the sewerage system include the following.

- » Use dry cleaning methods, such as wiping up spills and sweeping, rather than hosing.
- » Use absorbent packs available to soak up oil spills.
- » Ensure all equipment is properly cleaned and maintained.
- » Don't pour oil down the drain. Ensure that adequate storage is provided for used oil and that a collection program is arranged with an oil recycler.
- » Use cleaning products that are low phosphorus and have a pH of 6-9.

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## MAINTENANCE OF PRE-TREATMENT DEVICES

Regular cleaning of oil separators is required to ensure effective operation. Council will set the service frequency (period between services by a service contractor) of each oil separator and holding tank as part of the trade waste approval. This is usually every 3 months, but may be more frequent in some circumstances. Maintenance schedules should be developed in accordance with the manufacturer's instructions and in conjunction with council's Assets and Hydraulics Unit.

The service contractor will provide a record of the service and details of any maintenance issues to council by the first week following the month that the servicing was completed.

Servicing records (from the service contractor, waste contractor and/or in-house records) should be kept and made available to trade waste officers when required.

Council requires that an approved service contractor be used for maintenance of oil water separators.

See the *Oil Separator Maintenance Checklist* on council's website for maintenance guidance.

## MORE INFORMATION

For [trade waste application](#) enquiries, contact council's Assets and Hydraulics Unit.

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