Trade Waste Information Sheet

Ship to Shore Pump-outs

Preface

Liquid waste generated by industry, small business and commercial enterprises is referred to as trade waste. The *Water Supply (Safety and Reliability) Act 2008* prohibits the unauthorised discharge of wastes, other than domestic sewage, into the sewerage system.

1. The definition of trade waste is;

- *The waterborne waste from business, trade or manufacturing property, other than:*
  - *Waste that is a prohibited substance; or*
  - *Human waste; or*
  - *Stormwater.*

2. The definition of Domestic waste is;

- *Faecal matter and urine of human origin and liquid wastes from sinks, baths, basins, showers and similar fixtures designed for personal hygiene in both residential and commercial properties.*

General

Wastes that may be expected from boats/marinas include:

- on-board toilet wastes
- liquid galley wastes
- bilge waste water

Wastes requiring further pre-treatment prior to discharge to sewer:

- liquid galley waste
- dry dock cleaning waste from maintenance

and wastes prohibited to discharge to sewer:

- bilge water
- stormwater or tidal waters.

Reference should be made to *Marine Pollution Regulation*, and '*Best Practice Guidelines for Waste Reception Facilities at Ports, Marinas and Boat Harbours in Australia and New Zealand*', ANZECC and Australian Transport Council.

Vessels with a Single Waste Holding Tank

Owners of vessels should make provision for a separate on-board holding tank for galley waste. Alternatively, a small grease arrestor can be installed within the galley.

This would complement Council's strategy of retro-fitting grease arrestors at the existing land-based premises.

In situations where toilet waste is combined with galley waste the discharge shall be pumped direct to sewer and not discharged through a land based grease arrestor.

Vessels with Separate Holding Tanks for Toilet Waste & Galley Waste

Vessels with separate holding tanks for toilet and galley wastes must have them pumped ashore separately. The toilet waste can be pumped directly to the sewerage system, but galley waste must be pumped to the sewerage system via a suitable grease arrestor on shore.

Note: The pumping of seawater into the sewerage system has the potential to adversely impact on sewage treatment processes. It can also present a safety risk to personnel and result in corrosion.

Salinity levels can affect the process operation and may pose a problem to the discharge environment. It is important to take into consideration the impact of saline wastes on the effluent management.

Note: Untreated bilge water is prohibited from discharge to the sewerage system as it can be contaminated with diesel, oil, salt etc.

Should odour problems be experienced with the ship to shore pump-out facility, then odour control measures may be required.

A flow measurement system may be required to determine the volume for charging and monitoring purposes. The following options should be considered:

- Permanent flow metering should be included.
- All flow meters shall incorporate a liquid crystal display (LCD) or light emitting diode (LED) digital display not able to be reset for total volume pumped in kL, together with the instantaneous flow rate in L/s
- The flow meter to be calibrated every 12 months and a "certificate of calibration" provided to WRC.

Measures should be taken to avoid the potential misuse of the facility. Possible safeguards include, but are not limited to:

- "KAM-LOK" fittings that prevent pumping unless the hose is fitted appropriately. This prevents pump-out if the hose was simply immersed in liquid (e.g. into a bilge)
- Restricting the length of hose from the pump-out facility to the minimum. This will make it difficult for the hose to be placed in the bilge of a vessel

- Allowing the pump-out to operate for only a short period of time (usually one (1) minute) after being switched on.

Galley Waste

Where liquid galley waste is proposed, it is recommended that a separate pump-out facility including a grease arrestor is provided and that the waste passes through the grease arrestor prior to discharge to the sewerage system. The grease arrestor should be sized according to the flow rate with a minimum capacity of 1000 L.

Combined wastes such as galley wastes/greywater/slipway/ stormwater are **not permitted** to discharge through the grease arrestor.

Hose Connections for Ship-to-Shore Pump-outs

Special non inter-changeable hoses must be provided for the following pump-out services. Both the hoses on the shore, and any hoses on the vessel, must have a ball valve immediately following a suitable KAM-LOK fitting to prevent spillage when the hose is disconnected from the vessel:

1. **Toilet Wastes**
   40 mm Male KAM-LOK on vessel
   40 mm Female KAM-LOK on hose end
2. **Galley Wastes**
   40 mm Female KAM-LOK on vessel
   40 mm Male KAM-LOK on hose end
3. **Chemical Toilets (portable)**
   May be carried ashore for discharge to sewer via a flushed “slops hopper” or may be disposed of via a suction KAM-LOK fittings fitted as described in item (1) above.

Application Information that will be Required for Approval

The type and number of vessels either moored at the facility/marina and/or would utilise the pump-out facility on a regular basis:

- Private.
- Commercial.

Process Type: (Indicate which processes are proposed)

- Septic waste (Toilet Waste with no chemical additives)
- Chemical toilet wastes
- Liquid galley wastes
- Bilge water is not permitted for discharge

- Owner/operator details
- Commercial facility
- Daily quantities of waste and the rate of discharge
- Times and peak periods of discharge
- The use of odour inhibiting or other chemicals and their dosage rates
- WRC assessment of the dilution available in the receiving sewer and concentration limit of formaldehyde expected to enter the STP
- A copy of any relevant reports or documents (e.g. EIS, consultant's report etc.)
- A schematic layout of the proposed system and/or proposed pre-treatment equipment
- Any other relevant information
- WRC proposed conditions of approval.