AUTO DISMANTLER / ENGINE RECONDITIONING / PANEL BEATING / RADIATOR REPAIRS

Background

As detailed in the Icon Water publication *STD-SPE-P-003 Trade Waste Approval and Compliance Requirements*, activities that generate liquid trade waste for discharge into the Icon's Water Sewerage Network ***must*** comply with specific requirements.

Any capitalised terms used and not defined in this guide note has the same meaning as in Icon Water publication *STD-SPE-P-003 Trade Waste Approval and Compliance Requirements*.

Purpose

The purpose of this guide note is to provide detail on the specific requirements for liquid trade waste generated from auto dismantlers and engine reconditioning businesses so that compliant waste can be approved for ongoing acceptance into the Icon Water Sewerage Network. Such facilities are pre-determined to be Category B discharges subject to the maximum daily discharge volume not being exceeded.

Compliance

The Trade Waste Customer remains responsible and liable for ensuring compliance with this guide note even if the occupier of the premises is another party or entity.

In the event the Trade Waste Customer or the occupier of the premises fails to comply with this guide note, Icon Water may take any and all corrective actions as specified in the Icon Water publication *STD-SPE-P-003 Trade Waste Approval and Compliance Requirements* and the Liquid Trade Waste Negotiated Contract.

Guidance

The requirements detailed in this guide note are applicable for the following facilities, when categorised as Category B discharges:

Table 1. Facility types and Category B requirements

Facility Type / Activities	Maximum Allowable Daily Discharge Volume	Requirements
Auto dismantlers including: • Removal of salvageable part. • Parts degreasing and washing. • Site wash-down.	20,000 L	(i) the instantaneous flow rate does not exceed 3 L/s, and (ii) the required pre-treatment equipment is installed in-conjunction with good housekeeping practices, and (iii) excluded substances are not discharged.
Engine reconditioners, including: • Disassemble of engines. • Engine degreasing/washing. • Recondition of engines by thorough cleaning, re-grinding of parts and re-boring of parts. • Vehicle and site floor wash-down.	5,000 L	

Facility Type / Activities	Maximum Allowable Daily Discharge Volume	Requirements
Panel Beating, including: • Repairing of damaged vehicle body panels using processes such as re-alignment, shrinking/stretching, planishing, welding, filling and sanding. • Preparation for spray painting as well as actual spray painting of repaired parts. • Washing/detailing parts and completed/repaired vehicles.	20,000 L	
Radiator repairs or servicing. • Testing of radiators. • Degreasing and washing radiators.	5,000 L	

Workshops/facilities with no wastewater to Icon Water Sewerage Network

Some workshops/facilities degrease and wash parts in a parts washer and collect wastewater for off-site disposal so that there is no liquid waste discharge to the Icon Water Sewerage Network.

In this case, **no liquid trade waste approval is required if** the following criteria are met:

(i) no floor drains/floor waste outlets are connected to the Icon Water Sewerage Network, and

(ii) sinks in the workshop/facility are used for hand washing only. There must be no parts rinsing after degreasing in such a sink, and

(iii) invoices/receipts for the waste removal by a licensed contractor (including details of the disposal facility) must be provided when requested by Icon Water.

This guide note **does not** apply to:

- Mechanical workshops associated with industry or manufacturing facilities such as a workshop at an airport, bulk fuel depot, train depot, engine reconditioning facility, radiator repairer and panel beater. Liquid trade waste applications for these discharges will be assessed by Icon Water using the "RIF method" detailed in the Icon Water publication *STD-SPE-P-003 Trade Waste Approval and Compliance Requirements.*

Excluded substances/equipment/processes

The following are prohibited from discharging to the Icon Water Sewerage Network:

- Parts washers are prohibited from being connected to the Icon Water Sewerage Network.
- Degreasers
- Radiator coolants (e.g. ethylene glycol)
- Hydraulic fluids (e.g. brake fluids and transmission fluids)
- Petrol, diesel, discrete oil, kerosene, solvents and other flammable and/or explosive substances, spent chemicals.
- Rainwater/stormwater and groundwater.

- Wastewater containing chemicals or substances above our acceptance criteria (or not listed) in Icon Water publication *STD-SPE-P-003 Trade Waste Approval and Compliance Requirements.*

The above-mentioned substances must be collected and removed for off-site management prior to engine dismantling activities be undertaken.

Pre-treatment requirements

The following pre-treatment equipment is required to be installed where the wastewater is discharged to the Sewerage Network:

Table 2. Pre-treatment devices

Pre-treatment Device	Details
Screens	Must be fitted to all floor drains.
Dry basket arrestor[1]	Must be installed for any floor waste outlet. The arrestor needs to be maintained regularly (e.g. removed, scraped and cleaned) to ensure the unit is operating properly.
Collection well/pit	Must have a minimum capacity of 300 L. They must be maintained and cleaned regularly to remove the build up of gross solids. Gross solids must not be discharged to the Icon Water Sewerage Network. Not required if only radiator repair activities conducted.
Coalescing plate interceptor/separator, hydrocyclone separation system or a vertical gravity separator[1]	These must be sized according to the influent flowrate and installed in accordance with the manufacturer's instructions. The minimum size accepted is 1,000 L capacity. A non-emulsifying feed pump shall be used. All associated pipe work shall be sized to match the pump capacity. The pump type and speed shall be permanently marked on the pump. A nominal 25mm "full flow" sampling valve shall be provided in the effluent pipe leading to the tundish. The following information shall be permanently marked on the device; • model designation, • supplier name, • address and phone number, • the maximum instantaneous flow capacity (this should equal or exceed the pump flow rate). Not required if only radiator repair activities conducted.

Pre-treatment Device	Details
Solids settling pit	Required for radiator repair activities The size must be based on the maximum expected discharge flowrate and the nature of the solids to be settled (i.e. the settling velocity). The pit should have a flow baffle to slow the flow down and direct it towards the bottom. A second baffle should be provided to retain floatables in the wastewater and direct the flow under the baffle and into the weir area. It must be maintained and cleaned regularly to remove the build up of gross solids. Gross solids must not be discharged to the Icon Water Sewerage Network.
Bunds	Must be installed around the liquid trade waste process and pre-treatment area. A bund of at least 150 mm high or speed bump hump 75 mm high around the area is required if it is outside to prevent surface stormwater flow.

[1]*The discharger must provide supporting information in regard to sizing of equipment and the manufacturer's recommended maintenance schedule.*

[2]*Double and triple interceptor pits and general-purpose pits are not deemed by Icon Water to be appropriate pre-treatment equipment for the wastewater generated by auto dismantlers, engine reconditioning and the like.*

Coalescing plate interceptor/separator, hydrocyclone separation system or a vertical gravity separator and Solids settling pit

Installation requirements

Location: Installation of the system must allow safe access for maintenance and inspection. The system must be installed to meet Australian Standards with respect to, but not limited to, working at heights and confined spaces. It must also be installed in a location that is accessible by maintenance vehicles to allow safe access to thoroughly clean its interior.

Connection to sewer: Use a disconnector gully with a riser pipe and inlet fitting and a tundish, a minimum of a 20 mm air gap between the tundish and the outlet from the pre-treatment equipment is required. The gully riser is to be outside the bunded area. If the gully riser is within the bunded area, the top of the gully must be 100 mm above the bund height. The gully riser must be 100mm in diameter.

Sampling: A nominal 25 mm "full flow" sampling ball valve shall be provided in the effluent pipe leading to the tundish. The valve shall be located near the separator in a manner such that effluent would pass through the valve (when it is open) rather than discharging to the tundish.

Solids settling pit: Install a pit large enough to ensure a suitable working capacity. The pit capacity is to be measured between the inlet wall and weir wall. It must be installed such that the pit and weir are level to ensure correct operation of the pit. The pit must be raised 75 mm above the ground level or have gatic airtight covers. The internal coating of the pit must be acid resistant e.g. acid-resistant tar epoxy paint or cement rendering. It must be constructed and installed to allow ease of inspection and cleaning. Any grates or lids should be easily removed and the pit wide enough so that accumulated solids can be easily removed.

Collection well/pit: Install a 300 L working capacity collection pit. Note, to attain 300 L working capacity, you must install a pit larger than 300 L. They must be constructed and installed to allow ease of inspection and cleaning. The grates should be easily removed and the pit wide enough so that accumulated solids can be easily removed. The pit must have a high-level alarm switch fitted (audible and visible), with remote alarm signal to an area on the site that is able to be monitored.

Pump: Use the correct pump to manage the wastewater generated. The pump shall be a non-emulsifying feed pump

Vertical clearance: Ensure there is adequate vertical clearance above the pre-treatment system to allow safe inspection, cleaning and replacement of the plate pack(s).

Compliance plate: Check that there is a compliance plate with a compliance number clearly visible on the system. This ensures the equipment is authorised for the full range of conditions and wastewater on-site.

Bunding: Ensure the liquid trade waste generating process area and pre-treatment is within a bund. A bund of at least 150 mm high or speed bump hump 75 mm high around the area is required if it is outside to prevent surface stormwater flow. The overall surface water flow across the site has to be considered and the height of the bund/speed bump may have to be increased to prevent stormwater flow.

Roofing: The liquid trade waste generating process area and pre-treatment must be roofed to prevent ingress of rainwater. A ten degree, from the vertical, overhang is the minimum acceptable roof cover. to ensure rainwater does not get in**.**

Backflow prevention: A cold water tap must be installed within 5 metres of the separator. A backflow prevention device must be installed on the inlet side of the tap. The backflow device(s) must be tested every 12 months by a licensed plumber who is accredited in backflow prevention to ensure it is operating correctly and to identify if the valve requires servicing/repair. After testing a valve, the Licensed plumber must lodge a test certificate with Access Canberra, the plumbing regulator.

Note: The pre-treatment installation's pipe work and the surrounding area must be arranged to ensure that any spillage or overflow of sludge, separated oil or untreated oily waste is prevented from bypassing the separator and entering the sewerage network.

Commissioning requirements

Each pre-treatment device/system shall be commissioned by a person or company accredited for this purpose by the manufacturer or supplier of the equipment. As part of the commissioning, the following documents shall be provided:

- a certificate of commissioning to be to be forwarded to Icon Water, and
- a schedule of recommended cleaning and maintenance to be given to the owner and kept at the premises for reference and available for inspection by Icon Water on request. The schedule shall provide:
    - a description of activities to be undertaken (e.g. for coalescing plate separators the removal and cleaning of plates, sludge withdrawal from hopper, etc.)
    - minimum frequencies for these activities; and
    - any special observations to be made which would affect the frequency of this maintenance schedule or which may indicate conditions when qualified service personnel may need to be engaged.

Maintenance requirements

The pre-treatment system must be maintained as per the schedules provided during the commissioning of the system. The maintenance regime must include all aspects as indicated above in *Commissioning requirements.*

Other waste management

In addition to the installation, operation and maintenance of pre-treatment devices, the following discharge requirements are also applicable:

- If parts are washed in a part washer, the solution must be disposed of at an appropriate facility.
- Any spent oil, degreasers, hydraulic fluids and radiator fluid etc. must be collected and securely stored in appropriate containers for recycling or disposal at an appropriate treatment facility.
- Invoices/receipts for the waste removal by a licensed contractor (including details of the disposal facility) need to be provided when requested by Icon Water.

- It is preferable to use dry processes where possible. Small parts should be washed in a solvent-recycling parts washer located within an area with no drainage to the sewer. However, if the wastewater is proposed to be discharged to the Icon Water Sewerage Network, then the wash area must be sealed, bunded and roofed.

Chemical handling and storage

Safety data sheets for any chemicals stored in bulk on-site and may be present in the wastewater, must be provided to Icon Water as an attachment with the Icon Water liquid trade waste application form.

Chemicals should be stored in an area where any spillage cannot drain to Icon Water's Sewerage Network or stormwater system. Concentrated chemicals e.g. acids, caustic and other corrosive chemicals must not be discharged to Icon Water's Sewerage Network. Chemical solutions containing small quantities of these substances should be neutralised before discharging to Icon Water's Sewerage Network.

Housekeeping

The following general housekeeping practices must be complied with:

- A mineral oil separator is more efficient if detergents are not used (e.g. cleaning is completed using high water pressure). If the use of detergents cannot be avoided, only quick-break detergents must be used. These detergents allow oil/water emulsion to break quickly (say, within 20–30 minutes) and assist the separation process.
- Oil spills must be dry cleaned prior to wash down.
- Grease blobs must be scraped-up before wash down.
- Screens must be used to exclude bolts, nuts, washers and the like from the pump intake.
- Cleaning compounds must be compatible with the pre-treatment system.
- Oils, solvents, hydraulic fluids, chemicals and empty containers must be stored in a separate bunded area that cannot drain to the sewerage or stormwater network.

Note:

- Draining of radiator coolant is not permitted to the Icon Water Sewerage Network. A large quantity of ethylene glycol has the potential to adversely affect the operation of the sewerage system and therefore must not be discharged. Furthermore, a large quantity of ethylene glycol will increase the emulsification of oils and greases and thereby reduce the efficiency of any hydrocyclone separation system, vertical gravity separator or coalescing plate interceptor/separator system. All radiator coolant must be collected and securely stored for recycling or disposal to an appropriate treatment facility.
- Use and disposal of solvents (not permitted to the Icon Water Sewerage Network): Solvents are often used for cleaning parts. Spent solvents must be collected and taken off-site for recovery or disposal and not discharged to the sewerage system. Measures must be taken to ensure that the area used for parts washing does not drain to the sewerage network or pre-treatment equipment. However, the final rinse water may be discharged to the sewerage network via the pre-treatment equipment, provided that excess solvent is removed by draining and parts are dried before rinsing.

Compliance management

Record keeping

The customer must keep documentation relating to inspection and servicing of all interceptors/separator systems at the premises for at least two (2) years and make this documentation available upon request.

The Liquid Trade Waste Customer must maintain appropriate records to demonstrate compliance with the Negotiated Customer Contract at all times.

Site inspection

Icon Water's personnel may attend the premises to conduct site inspections to verify compliance with the Liquid Trade Waste Negotiated Customer Contract. The indicative frequency of site inspections is detailed in Section 9.12 of Icon Water's publication *STD-SPE-003 Trade Waste Approval and Compliance Requirements*.

References

- *STD-SPE-P-003 Trade Waste Approval and Compliance Requirements*
- *TW-GN-114 Trade Waste Guide Note - Mechanical Workshops/Lawnmower repairs*
- *TW-GN-205 Trade Waste Guide Note – Service Station Forecourt/Refuelling Point (Existing Only)*

Issue	Date	Reason for Revision	By
A	10/06/2025	Issue for public consultation	S. Chappell