RETAIL FOOD – HOT FOOD / COOKING

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 Water's Sewerage Network ***must*** comply with specific requirements.

Retail food activities are sub-divided into two groups:

- activities that **do not** generate greasy/oily types of waste (referred to as "No Cooking"), and
- activities that **do** generate greasy/oily types of waste (referred to as "Hot Food" or "Cooking").

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 retail food activities that **do** generate greasy/oily waste, so that compliant waste can be approved for ongoing acceptance into the Icon Water's Sewerage Network.

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

For the purposes of these requirements, "Hot food/Cooking" means that greasy/oily wastes are generated as a result of;

- preparing, cooking and/or serving food on the premises.
- the washing of cookware, dishes, utensils or cutlery on the premises.

Food that is heated only (e.g. using a pie warmer or sandwich press) and served in disposable/take-away containers is defined as "No Cooking". See TW-GN-101 for requirements of this nature.

The following details the requirements for Category A discharges relevant to this guide note.

i) the discharge volume does not exceed 5 kL/day, and

ii) the required pre-treatment equipment is installed in-conjunction with good housekeeping practices, as well as

iii) excluded substances are not discharged.

iv) no more than four Category A discharges from a single premises or complex (excluding those listed and complying with the requirements in Table A.1 of Icon Water publication STD-SPE-P-003).

Excluded substances/equipment/processes

- Wet wok burners: We will not provide a Liquid Trade Waste Negotiated Contract to any ***new premises*** that proposes the use of a wet wok burner.
- Food waste disposal units (aka “macerators”, “in-sinkerators”, “in-sink food waste disposers”, “garbage grinders”, “composters”, “digestors”): We will not provide a Liquid Trade Waste Negotiated Contract to any premises that use these devices.
- Bacterial, enzyme and/or odour controlling agents: The use of these are prohibited and must not be discharged directly to, or via, pre-treatment devices to the Sewerage Network.
- 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.*

Pre-treatment requirements

The following table describes pre-treatment requirements that apply to ***all*** retail food processes that generate greasy/oily waste.

Table 1. Pre-treatment devices: For all retail food processes that generate greasy/oily waste

Pre-treatment Device	Details
In-sink dry basket arrestor	Must be provided for all sinks in food preparation and handling areas. We recognise that some businesses may experience problems with the installation of these screens. If so, sink strainers must be used as an alternative. During our inspections/audits, we will check whether sink strainers have been installed. If strainers are not in use, we will require that an in-sink dry basket arrestor be provided.
In-floor dry basket arrestor[1]	Must be installed for any floor waste outlet, located in the food preparation and handling area (where applicable). The arrestor needs to be maintained regularly (e.g. removed, scraped and cleaned) to ensure the unit is operating properly.
Passive grease trap (aka “passive grease arrestor”)[2]	Must be installed to receive all drainage that conveys wastewater associated with food preparation, cooking, serving and washing up, with the exception of: • glass washers: drainage from glass washers must not pass through a passive grease trap. They generate wastewater of high temperature which can interfere with the fat and oil separation in a grease trap. They must discharge direct to the Sewerage Network. • potato peeling appliances: where possible, liquid waste from potato peeling appliances should not go through the grease arrestor in order to prevent fermentation processes occurring in the arrestor. • oils and fats (used/unwanted): these must be collected and must not be disposed into drainage that passes to a passive grease trap and/or directly into the Sewerage Network. They must be removed from the premises by an authorised oil and fat recycler.

[1] *A mobile food van without floor waste outlets will not require the installation of a dry basket arrestor.*

[2] *A school with home science facilities, used to conduct cooking classes, only needs to discharge their wastewater through a grease trap if it is both practical and already available because of other activities (e.g. a school canteen with Hot Food cooking).*

Pre-treatment devices: For <u>specific</u> retail food processes that generate greasy/oily waste

Fat/oil interceptor[3] (i.e. "active arrestor") must only be installed upstream of a grease trap and is required when an activity involves the use of steam ovens/combi-ovens or gas vats that are:

- cooking poultry or pork, and
- are connected directly to the sewer (upstream of a grease trap).

[3] *In-built fat and oil interceptors, may be approved in these circumstances, subject to our assessment.*

Collected oil from the device must be emptied daily (or as necessary) into a container for removal by an authorised oil recycler.

Please note: Fat/oil interceptors (aka "active arrestor") ***cannot*** be used as a stand-alone device.

<u>Passive grease traps</u>

Installation requirements

Location: The grease trap must be installed to allow safe access for maintenance and inspection. The grease trap 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 a vacuum tanker and has adequate vertical clearance above the grease trap to allow safe access to thoroughly clean its interior. Grease traps must be protected from direct exposure to sunlight even if the manufacturer states that the materials of construction can withstand such exposure. Exposure to direct sunlight can result in a relatively high temperature within the grease trap which can in-turn interfere with the grease separation process. In addition, inlet pipes to the grease trap must be protected from extreme cold temperatures to prevent blockages due to a build-up of solidified greasy wastewater over a prolonged period.

Venting: Two vents (minimum DN100) must be installed for cross-ventilation. One on the inlet line to the grease trap and one on the grease trap to assist with cooling. Where a vent pipe or stack is connected to the drain on the inlet side of the grease trap, they may be used in lieu of specific inlet vent (provided they are not less than DN100). Air admittance valves (AAV) are not permitted as a venting device for the grease trap.

Inlet connection: If the wastewater is pumped, connect the pump-line to a junction then to the double Y junction.

Outlet connection: The invert level of the outlet pipe of a grease trap must be correct. If the invert of the outlet is too low, the grease trap will operate at a smaller capacity than specification. If the invert of the outlet is too high, the inlet connection may become submerged. The invert of the outlet pipe must be 150 mm lower than the invert of the inlet pipe. The outlet inspection shaft must be extended to the surface and fitted with a removable screwed cover to permit waste sampling.

Pump-out suction line: The pump-out suction line must not be permanently fixed inside the grease trap. Instead, a permanent suction line fitted with appropriate coupling and ball valve fitted may be brought to the vicinity of the grease trap.

Lids: Lids that are suitable and fit for purpose must be installed and must meet Australian Standards. Inspection openings are to be provided at each end of the grease trap either in the roof of the grease trap or lids.

Compliance markings: There must be compliance markings on the grease trap to demonstrate it meets relevant standards.

Identification plate: The grease trap must be clearly labelled with unique identification codes or numbers. These must be used in applications or variations submitted to Icon Water to allow correct management and identification of all grease traps located on a site.

Water supply: A cold water tap must be installed within 5 metres of the grease trap. 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.

Wastewater transfer pumps: If required, these should be installed away from food preparation/serving locations, to prevent potential contamination during maintenance or if the pump malfunctions.

Sizing requirements

The **minimum accepted capacity of a grease trap is 1,000 L**. Some discharges require a larger grease trap, for example:

Fast food outlets (e.g. McDonalds, Red Rooster, KFC etc.) and large supermarkets require a grease trap with a minimum capacity of 2,000 L.

- Wok burners located within existing premises require the installation of a grease trap with a minimum capacity of 1,500 L. Wok burners should preferably be replaced by a dry process as this will result in significant water savings and subsequently lower water charges for the business.
- Barbequing processes (poultry or pork) in a steam oven or gas vat that directly connects to the Sewerage Network requires a grease trap with a minimum capacity of 2,000 L.
- If a grease trap is to be shared between businesses, the capacity of the grease trap needs to be equivalent to the total of grease trap capacities required for each individual business.

The maximum capacity of an individual grease trap is limited to 5,000 L. If a larger capacity is required, multiple grease traps may be required. However, the total installed volume of multiple grease traps must not exceed 10,000 L. If it is identified that a premises requires a total installed volume of grease traps greater than 10,000 L, the Trade Waste Customer or their nominated representative must discuss their proposal with Icon Water prior to progressing the design and construction.

Table 2 below provides sizing requirements for passive grease traps in addition to those mentioned above.

Table 2: Grease trap sizing

Daily discharge (L/day)	Minimum capacity of grease trap (L)	Typical number of restaurant seats or hospital beds	Typical number of motel rooms
1 - 1,100	1,000	0 - 70	0 - 35
1,101 - 3,200	1,500	71 - 200	36 - 100
3,201 - 6,400	2,000	201 - 400	101 - 200
6,401 - 9,600	3,000	401 - 600	201 - 300
9,601 - 12,800	4,000	601 - 800	
12,801 - 16,000	5,000	801 - 1000	

Please note: premises with long operating hours (including those with continuously running dishwashers) must employ a grease trap that has been designed to reduce effluent temperature consistently - staying at or below 38 °C.

It is important that grease traps are sized appropriately to ensure correct treatment of the wastewater. Oversized grease traps still require regular maintenance and pump outs to prevent anaerobic conditions (which may lead to increased corrosion and odours), while undersized grease traps will not operate properly, allowing fats, oils and grease to enter the Sewerage Network.

Commissioning requirements

Each grease trap 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/letter of commissioning/operation 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
    - 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.

*NOTE: Not relevant for screens / in-sink basket arrestors, floor dry basket arrestors.

Maintenance requirements

All equipment for the treatment of the liquid trade waste is to be kept clean and maintained in an efficient condition to the satisfaction of Icon Water and must not be modified without the approval in writing of Icon Water.

It is the Trade Waste Customer's responsibility to ensure the grease trap is cleaned and maintained. A maintenance schedule must be implemented by the Trade Waste Customer. Criteria for the maintenance is detailed below.

Maximum time between pump outs: 13 weeks

It is the Trade Waste Customer's responsibility to monitor and ensure the grease trap is cleaned out sooner should the following occur:

1. a floating layer of grease 75 millimetres thick has formed on the surface, or
2. odours become noticeable, or
3. our Sewer Network receives wastewater outside of the acceptance criteria detailed in the Liquid Trade Waste Negotiated Contract.

During each pump out, the sides and baffle(s) of the grease trap must be scraped to detach grease adhering to the surfaces, the grease trap must be completely pumped out (not just skimmed). It is good practice to then refill it with water to at least to the top of the outlet. It is each Trade Waste Customer's responsibility to ensure that proper cleaning procedures are followed.

The initial clean out frequency is used as an interim guide to enable the Trade Waste Customer to commence the discharge. The Trade Waste Customer may apply to Icon Water to have the frequency of pump out changed, depending on the scale of the business conducted at the premises once operations are proved. It is the Trade Waste Customer's responsibility to monitor for and provide evidence that the criteria (1 – 3) listed above are complied with at all times.

Icon Water may inspect premises on a random basis to ensure grease arrestors are operating properly and to minimise the incidence of sewer blockages and chokes.

Note: Trade Waste Customers may apply to Icon Water to increase cleaning where a grease trap is deemed undersized. An assessment will be conducted, and any approval will be at Icon Water's discretion. If it is approved, the liquid trade waste discharge category may change, and additional conditions may apply. Any grease trap that is greater than 50% smaller than the required size will need to be replaced with an appropriately sized grease trap within the required timeframe.

Decommissioning requirements

Icon Water will approve the decommissioning of an existing grease trap where that grease trap is no longer required.

To decommission a grease trap we recommend the following steps;

1. Disconnect all fixtures supplying the grease trap.
2. Empty the grease trap of all wastewater effluent and thoroughly clean it.
3. Internal connections must be plugged off using a mechanical test plug to ensure no water can enter or exit the grease trap. Or the connections to site plumbing must be removed.
4. The grease trap should be filled such that it will retain internal strength and reduce external hydrostatic loading on the tank wall during the period of decommissioning and zero usage (if it is to be permanent, it should be filled with crushed rock or similar).
5. Lids should be removed and the hole concreted over so decommission is obvious.

Other waste management

Oil and Fats

Collected used oil and fats must not be disposed of into the Sewerage Network and should be removed from the premises by an ACT EPA authorised oil and fat recycler.

Garbage bin cleaning

Outdoor waste enclosures must be roofed and bunded to prevent the ingress of stormwater to the Sewerage Network. When there is a grease trap installed on site, the liquid trade waste from the garbage bin cleaning area should pass through the grease trap, if it is practical to do so. A dry basket arrestor with a fixed screen is to be fitted to all floor wastes in the washing area that drain to the Sewerage Network.

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 the 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 practices

Icon Water require the following:

- floors are to be dry swept before washing to avoid wastes being caught up in the wash water discharged down the drain to the Sewerage Network.
- pre-wiping of utensils, plates, bowls etc. to the scrap bin before washing up so as to minimise the amount of waste put down the drain to the Sewerage Network.
- all food waste/scraps must be placed in appropriate scrap bins and disposed of as solid waste appropriately (not to the Sewerage Network).
- all fat and oil from any barbequing/combi-oven /gas vat processes and any discrete oil must be collected for disposal offsite and must not be discharged into the grease trap or Sewerage Network

Compliance management

Record keeping

Trade Waste Customers must:

- keep documentation relating to inspection and servicing of all pre-treatment systems at the premises for at least two (2) years and make this documentation available to Icon Water upon request.
- maintain appropriate records to demonstrate compliance with the Liquid Trade Waste Negotiated 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 Contract. The indicative frequency of site inspections is detailed in Section 9.12 of Icon Water publication *STD-SPE-P-003 Trade Waste Approval and Compliance Requirements.*

Retail food activities that generate greasy and/or oily waste

The following table lists retail food activities that generate greasy and/or oily discharges.
Note: This list may not be exhaustive.

Table 3. Retail food activities that generate greasy and/or oily waste

Item	Business/Discharge Type
1	Bakery (retail) – pies, sausage rolls, quiches, cakes, pastries with cream or custards
2	Boarding house / bed and breakfast / hostel kitchen – exceeding 10 persons
3	Butcher
4	Café / coffee shop/bistro – with Hot Food / Cooking
5	Canteen / cafeteria – with Hot Food / Cooking
6	Chicken / poultry shop – retail BBQ / charcoal chicken (BBQ not connected to sewer)
7	Chicken / poultry shop – retail roast chicken with oven connected to sewer
8	Chicken / poultry shop – fresh chicken only for retail with cutting and preparation of meat on-site
9	Club – with Hot Food / Cooking
10	Commercial kitchen / caterer
11	Community hall / civic centre – with Hot Food / Cooking
12	Day care centre – with Hot Food / Cooking
13	Delicatessen – with Hot Food / Cooking
14	Fast food outlets – Burger King, KFC, McDonalds etc.
15	Fast food outlets with oven connected to sewer (e.g. Red Rooster)
16	Fish shop – with Hot Food / Cooking
17	Function centre with Hot Food prepared and / or served on-site
18	Hotel – with Hot Food / Cooking
19	Ice-cream parlour – made and / or served on-site
20	Mixed business – with Hot Food / Cooking
21	Mobile food van – with Hot Food / Cooking
22	Motel – with Hot Food / Cooking
23	Nightclub – with Hot Food / Cooking
24	Nursing home kitchen
25	Patisserie
26	Pie shop – cooked on site
27	Pizza - pizzeria
28	Restaurant
29	Sandwich shop / salad bar / snack bar – with Hot Food /Cooking
30	School – canteen with Hot Food / Cooking
31	School – home science with Hot Food / Cooking*
32	Supermarket – butcher / delicatessen / seafood / bakery
33	Supermarket – retail roast chicken (oven connected to sewer)
34	Takeaway food outlet – with Hot Food / Cooking

* *A school with home science facilities, used to conduct cooking classes, only needs to discharge their wastewater through a grease trap if it is both practical and already available because of other activities (e.g. a school canteen with Hot Food / Cooking).*

Requirements for retail food activities that do not generate greasy and/or oily waste

Refer to Icon Water trade waste guide note *TW-GN-101* for requirements relating to retail food activities that ***do not*** generate greasy and/or oily waste.

References

- *STD-SPE-P-003 Trade Waste Approval and Compliance Requirements*
- *TW-GN-101 Trade Waste Guide Note - Retail Food – No Greasy/Oily Wastes Generated*

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