QUEENSLAND UrbanUtilities

FACT SHEET

Trade Waste
Hydraulic plans with trade waste drainage

Before undertaking plumbing works with trade waste drainage at your premises, you must submit hydraulic plans to the relevant local council for plumbing compliance assessment.

Hydraulic plans with trade waste drainage must meet the requirements described in these guidelines.

Requirements

When you are preparing hydraulic plans with trade waste drainage, they must comply with Part 3 (Compliance Assessment) of the *Plumbing and Drainage Regulation 2003* and include:

- A description of your business type from those listed in Schedule 1 of this document.
- Details of each trade waste generating area, including:
  - a description of trade waste generating activities linked to each trade waste generating area
  - the designed peak trade waste flow rate (litres per hour)
  - the grade and fall of the trade waste generating area floor and surrounds for external areas,
  - if no bunding or wall is incorporated
  - the grade and fall of the trade waste generating area floor for internal areas.
- Roofing and sheeting details for external trade waste generating areas, including:
  - a diagram of the roof and overhang of external trade waste generating areas showing the minimum length of overhang on open walls to be at least 25 per cent of the height of the roof from the finished ground level
  - details of the coping or flashing that prevents rainwater entering the prescribed area, if the design relies in part on wall sheeting
  - details of diversion valves or first flush systems if roofing is not feasible (these systems require trade waste consent from Queensland Urban Utilities).
- Details of relevant water or trade waste effluent meters, including:
  - the existence and location of any relevant potable water sub-meters
  - the existence and location of any trade waste effluent meters
  - the existence and location of any alternative water supply meters where this water is used to generate trade waste
  - the location of meters and meter displays in accordance with accessibility requirements described in Part 4 of the *Queensland Plumbing and Wastewater Code.*
  - Effluent meters must comply with the requirements of the WSAA *Trade Waste Metering Code of Practice (WSA 15 - 2014)*

- Details of all pre-treatment systems, including:
  - the manufacturer's name
  - the pre-treatment system type and model number (consistent with the authorised types and models listed within our Register of Authorised Basic Pre-treatment Products)
  - a statement that the system is to be of a type listed in the our Register of Authorised Basic Pre-treatment Products, if the pre-treatment system manufacturer, type and model is unknown
  - the pre-treatment system capacity specified by the manufacturer and the expected hydraulic load on the pre-treatment system
  - the type and rating of the pump which must be matched to the manufacturer's specifications for the pre-treatment system, if the wastewater is to be pumped
  - a statement that the pump will be of a non-emulsifying type, if oily water is to be pumped
  - a hose tap (20mm minimum), with compliant backflow protection, located within five metres of each pre-treatment device
  - a statement that the pre-treatment system is accessible for maintenance (for guidance, it is recommended that the hardstand area be no further than 15 metres from the pre-treatment device)
  - an indication that the cover/lid of the pre-treatment system is of an airtight type (specified by AS 3996:1992).

- Details of hydraulic load allocated to pre-treatment equipment, including:
  - an information schedule of the form shown below, for transparency about how trade waste hydraulic loads have been allocated to pre-treatment devices (schedules with different formatting or justification for the adopted hydraulic load are acceptable provided the required detail is provided with clarity)
  - where there is more than one arrestor on the premises, the identification number of each
  - details of the arrestor that will service each tenancy if there is more than one tenancy on the premises,
  - details of the total peak hourly flow directed to each arrestor
  - updated details of new hydraulic loadings where a connection, disconnection or change to connection affects an existing trade waste installation
  - details of estimated peak trade waste flow for all shops connected to the shared arrestor where a new shop fit-out is to be installed at a premises resulting in multiple tenancies connected to a shared arrestor.

Example of an Information Schedule

Arrestor No.	Tenancy	Business Type	Fixtures	Qty	Peak Hourly Trade Waste Flow (L/hr)†	Arrestor Capacity (L)
BW2635	1	Takeaway	Floor waste	1	50	
			Hand basin	1	30	
			Double bowl sink	2	600	
	2 (new)	Takeaway	Floor waste	1	50	
			Hand basin	1	30	
			Dishwasher	1	300	
			Total		1060	2000
New	3 (new)	Canteen	Floor waste	2	50	
			Hand basin	1	30	
			Total		80	1000
	4 (new)	Sandwich bar	Floor waste	2	No pre-treatment	
			Hand basin	1	No pre-treatment	

L = Litres, L/hr= Litres per hour

Notes about this example:

- Tenancy 1 – Existing tenancy with 2000L arrestor.
- Tenancy 2 – Shares arrestor BW2635. Existing arrestor is of adequate capacity.
- Tenancy 3 – Pre-treatment complies with minimum 1000L arrestor capacity.
- Tenancy 4 – No pre-treatment required (in accordance with business type).
- For business types and typical pre-treatment requirements, see Schedule 1.

† For guideline allocations for fixture peak hourly flows, see Schedule 2.

Important notes

- Where peak hourly trade waste flow is not calculated in accordance with Queensland urban Utilities' guideline flow estimates (refer to Schedule 2), the hydraulic plans must be submitted with a Trade Waste Consent, including justification of the method used and an attestation by an appropriately qualified person that the flow estimates are correct. If the guideline flow estimates are used, no consent is required.

- Applicants should consult with technical advisory services (e.g. hydraulic, chemical treatment and engineering consultants) to help design and size trade waste pre-treatment infrastructure before drafting the hydraulic plan.
- Processing and manufacturing industries should hold a pre-assessment meeting with Queensland Urban Utilities to determine trade waste effluent quality criteria to ensure adequate design and sizing of on-site trade waste infrastructure.
- While a plumbing compliance permit is a prerequisite of a trade waste approval, it does not provide approval to discharge trade waste to sewer. You need to apply separately to Queensland Urban Utilities for a trade waste approval.

More information

See also:

- Guideline of basic pre-treatment requirements
- Guideline for sizing of grease and oil arrestors

Schedule 1 - Pre-treatment requirements for nominated business types

The business types listed below are deemed to comply with sewer acceptance criteria when discharging trade waste through properly installed and maintained basic pre-treatment devices, unless otherwise specified in their trade waste approval. For completeness, business types without pre-treatment requirements are also shown in this table.

BUSINESS TYPE	BASIC PRE-TREATMENT REQUIREMENTS
Workshops	
Automotive industries Service stations, car detailers	Oil silt arrestor with a capacity greater than the peak hourly flow (L/hr).
Mechanical workshop	Oil silt arrestor with a capacity greater than the peak hourly flow (L/hr).
Food service	
Bakery (retail) Bread baking only	No pre-treatment required.
Bakery (retail) Cooking on site (preparation of pastries, pies, etc)	Standard grease arrestor sizing.
Butcher (retail)	Standard grease arrestor sizing. In-sink and floor waste basket traps of self-closing or fixed screen type.
Cafe / canteen / cafeteria Cooking on site	Standard grease arrestor sizing.
Chicken (fresh) Cutting and preparation of fresh meat	Standard grease arrestor sizing.
Chicken cooking (minor retail) BBQ, charcoal, rotisserie	Standard grease arrestor sizing.
Chicken cooking (major retail) Direct cooker connection to sewer (i.e. steam "combi" oven)	Grease arrestor with a capacity greater than the peak hourly flow (L/hour), but minimum 3000L.
Coffee shop / sandwich shop / sandwich bar No cooking on site and discharge <1000L/day	No pre-treatment required.
Coffee shop / sandwich shop / sandwich bar Cooking on site	Standard grease arrestor sizing.
Commercial kitchen Hotel, motel, function centre, hospital	Standard grease arrestor sizing. In-sink and floor waste basket traps of self-closing or fixed screen type.
Community hall kitchens Minimal food preparation at site	No pre-treatment required.
Community hall kitchens Cooking on site	Standard grease arrestor sizing.
Delicatessen No meat or hot food cooked on site	No pre-treatment required.
Delicatessen Hot food cooked on site	Standard grease arrestor sizing.
Doughnut shop Cooking on site	Standard grease arrestor sizing.
Fast food outlet (major franchise)	Grease arrestor with a capacity greater than the peak hourly flow (L/hr), but minimum 2000L grease arrestor.

BUSINESS TYPE	BASIC PRE-TREATMENT REQUIREMENTS
Fish and Chip Shop Cooking on site	Standard grease arrestor sizing.
Fresh fish (retail) No fish cleaned, filleted or cooked on site	No pre-treatment required.
Fresh fish (retail) Fish cleaned, filleted or cooked on site	Standard grease arrestor sizing. In-sink and floor waste basket traps of self-closing or fixed screen type.
Hotel / motel / bar / nightclub No cooking on site	No pre-treatment required.
Hotel / motel / bar / nightclub With counter lunches, cooking	Standard grease arrestor sizing.
Ice cream parlour Without hot takeaway food	No pre-treatment required.
Ice cream parlour With hot takeaway food	Standard grease arrestor sizing.
Pizza shop (not a major chain)	Standard grease arrestor sizing.
Restaurant	Standard grease arrestor sizing.
School canteen No cooking on site	No pre-treatment required.
School canteen Cooking on site	Standard grease arrestor sizing.
School home science / hospitality kitchen	Standard grease arrestor sizing.
Takeaway food shop No food cooked on site (i.e. sandwich bar)	No pre-treatment required.
Takeaway food shop Cooking on site	Standard grease arrestor sizing.
Tertiary institution kitchen / canteen / cafeteria	Standard grease arrestor sizing.
Food manufacturing/processing	
Food manufacturing – minor (<10 kL/day discharge)	Standard grease arrestor sizing. In-sink and floor waste basket traps of self-closing or fixed screen type.
Service industries	
Beautician / hairdressing salon	No pre-treatment required. No discharge through grease arrestor.
Laundry Coin operated only (not commercial)	No pre-treatment required.
Funeral parlour	No pre-treatment required.
School science laboratory	Authorised silt trap or dilution chamber with a capacity greater than the peak hourly flow (L/hr). Neutralisation chamber may be required.
School art studio / block	Silt arrestor with a capacity greater than the peak

BUSINESS TYPE	BASIC PRE-TREATMENT REQUIREMENTS
	hourly flow (L/hr).
Veterinary practice or hydrobath No discharge of regulated waste	No pre-treatment required. Basket trap in discharge being of self-closing or fixed screen type.
Care facilities	
Day care centre No cooking on site	No pre-treatment required. Standard grease arrestor sizing.
Hospital kitchen	Standard grease arrestor sizing.
Nursing home kitchen	Standard grease arrestor sizing.
Retirement village kitchen	Standard grease arrestor sizing.
Commercial process	
Bin wash Associated with commercial premises	Basket trap in floor waste of self-closing or fixed screen type. Wastewater to pass via grease arrestor (if installed).
Carwash Roofed and bunded	Oil silt arrestor with a capacity greater than the peak hourly flow (L/hr). Basket trap in floor waste of self-closing or fixed screen type.
Cooling tower condensate and blow-down Where this is the only trade waste discharge	No pre-treatment required. Metering solution required.
Boiler blow-down or wastewater Where this is the only trade waste discharge	No pre-treatment required. Metering may be required.
Refrigeration condensate Where this is the only trade waste discharge	No pre-treatment required. Metering solution required.
Compressor condensate Large scale	Oil silt arrestor with a capacity greater than the peak hourly flow (L/hr). Metering solution required.

Schedule 2 - Guideline allocations for peak hourly flows

We advocate a method of sizing that allows for one hour detention within the arrestor based on estimated peak hourly trade waste flows. To estimate the peak hourly trade waste flow within a trade waste generating area, sum the peak hourly flow allowances (from the table below) for all fixtures draining from the relevant area

Fixture/Fitting Type	Peak Hourly Flow Allowance (Litres/hour)
Bain Marie - water heated	Use maximum capacity of the apparatus x 3
Bin wash	Install in-floor self-closing dry bucket arrestor trap Installation of a grease arrestor is not required
Floor waste / bucket trap / grated strip drain	50 L/hr for every 50m^2 of floor area, or part thereof. Add allowance for any listed connected apparatus
Sealed floor waste gully	0 L/hr Add allowance for any listed connected apparatus
Cleaners' sink	30 L/hr
Dishwasher - tunnel feed*	Use manufacturer's peak flow rate per hour x 3
Dishwasher - large (>1 outlet)*	Use manufacturer's peak flow rate per hour x 3
Dishwasher – medium (upright)*	300 L/hr
Dishwasher – small (under bench)*	150 L/hr
Glass washer - tunnel feed	Use manufacturer's peak flow rate per hour x 3
Glass washing machine	150 L/hr
Grease canopy (water cleaned)	50 L/hr
Hand basin	30 L/hr
Ice cream machine soft serve	60 L/hr
Laboratory sink (commercial or research lab)	50 L/hr
Laboratory sink (educational facility)	22 L/hr
Noodle cooker	100 L/hr
Potato peeler (large commercial application)	Use manufacturer's peak flow rate per hour x 3
Potato peeler (small kitchen application)	100 L/hr
Rotisserie rack	100 L/hr
Steamer roast oven / Combi oven	1000 L + 40 L/hour per rack. 3000 L grease arrestor minimum size for high use combi ovens (i.e. supermarkets, fast food chains).
Electric or gas /steamer cooker / kettle	200 L/hr
Sink - utility / pot per outlet connected separately to drain (depth greater than 300mm)	300 L/hr
Sink – single bowl (depth up to and including 300mm)	150 L/hr
Sink – double bowl (depth up to and including 300mm fixture pair connection)	300 L/hr
Trough up to 4 taps	40 L/hr
Trough greater than 4 taps	Refer to trade waste section for advice
Tundish - condensate (refrigerator / freezer condensate)	3 L/hr
Tundish - other (except refrigerator condensate)	10 L/hr Add allowance for any listed connected apparatus
Wok burner –dry	30 L/hr per water arm
Wok burner –wet	Use manufacturer's peak flow rate per hour x 3
* Note: where practical, dishwashers should be plumbed around the grease arrestor.	

We will accept calculations made using this method without any additional justification from your hydraulic consultant.

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