Schools and Childminding

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Wastewater from schools and childminding training activities such as food preparation, laboratories and art contain grease and suspended solids at concentrations or quantities greater than a typical household but lower than dedicated business processes for similar activities. This material can still be corrosive or generate foul odours and build up in sewer pipes, restricting flows and causing blockages.

Appropriate management practices at each site are necessary. This guideline applies to, but is not restricted to the following activities:

- School training kitchens
- School Art/ pottery Classrooms
- School outdoor/ nature classrooms
- School Animal, Agricultural classrooms
- School training laboratories
- School Mechanical classrooms
- School Swimming Pools

This Fact Sheet does not apply to childcare centre kitchens, school tuckshops, canteens/cafeterias and tertiary education training kitchens. These activities should reference Commercial Food Preparation and Service Fact Sheet.

This Fact Sheet does not apply to University and Tertiary education Laboratories. The Laboratories and clinical practices fact sheet will apply in this application.

This Fact Sheet does not apply to School Groundskeeping and maintenance facilities. The Vehicle Washing and Bunding and Blind Tanks guidelines should apply.

Key trade waste quality requirements

Parameter	Generally accepted level
pH	Between 6-10 units
Temperature	≤38 degrees C
Total dissolved solids	≤1500 mg/L
Suspended Solids	≤500 mg/L
Flow rate to sewer	Dependant on capacity of receiving sewer.
Grease/oil	≤100 mg/L
Chlorine	≤5 mg/L

Note: Discharge limits may be varied under certain circumstances for individual dischargers.

School Training Kitchens

School training kitchens are used less frequently than standard commercial kitchens and replicate domestic cooking environments. Due to the increased risk to sewer than usual domestic cooking and cleaning, pre-treatment is required to be installed.

- Waste strainer basket (maximum 3mm holes) with a fixed secondary strainer (maximum 3mm holes) installed at sink outlets.
- Floor waste fittings with a water seal in the work area are fitted with a strainer basket (maximum 3mm holes) and a fixed secondary strainer (maximum 3mm holes).
- Grease Arrestor to be sized as per the methods in the Commercial Food Preparation and Service Fact Sheet, but with the following amendments:
    - Single bowl sinks 30 Litres per hour, Double bowl sinks 60 Litres per hour.
    - No retention capacity is required for floor wash down.
    - Dishwasher 30 Litres per hour.
    - Overall risk rating is Low and therefore storage factor is 1.
    - **Minimum School classroom grease arrestor size is 1000 L.**

School/College Training laboratories

School training laboratories are used less frequently and utilise lower concentration chemicals than standard laboratories. Pre-treatment is required to be installed.

- The Laboratory and Clinical practices fact sheet is to be referenced with the disposal and containment of chemicals.
- Primary School Laboratories do not require a neutraliser to be installed. All sinks should discharge through a 225mm silt trap fitted with mesh basket or holed bucket with 3mm mesh/hole size, including a fixed secondary strainer with a max 3mm hole size.
- All Secondary School laboratories require a neutraliser to be installed and sized by the following criteria:
    - Lab sinks sized at 30 Litres per hour.
    - **Minimum school laboratory neutralizer size is 400 L.**

School/College Art, Outdoor STEM and Nature Play Classrooms

School and childcare centre art, outdoor STEM classrooms generate wastewater that may contain traces of paint, clay and other suspended solids that may harm the sewerage system.

- Waste strainer basket (maximum 3mm holes) with a fixed secondary strainer (maximum 3mm holes) installed at sink outlets.
- Where large solids are present wastewater discharges via a 225mm silt trap fitted with mesh basket or holed bucket with 3mm mesh/hole size, including a fixed secondary strainer with a max 3mm hole size.
- If suspended solids (particles that would pass through a 3mm screen) are present, wastewater discharges via a suitably sized, approved settling tank or pit.
    - Sinks are sized to 30 Litres per hour.
    - Art troughs are sized to 30 Litres per hour for the first water outlet, and 15L per hour for subsequent water outlets.

    - A single sink may discharge to an approved plaster trap.
    - Art Classrooms may discharge through a shared Neutraliser or a Grease Arrestor that is appropriately sized for the combined flow.
    - **The minimum size of an art classroom settling pit is 400 L.**
- Oil based paints and solvents must not be poured into sinks or discharged to the sewerage system. These products are to be contained and disposed off-site.
- Wastewater-based paint may not be discharged to the sewerage system. Rinsing of jars and brushes containing minor amounts of water-based paint is acceptable.
- Outdoor sinks must be positioned undercover to prevent the ingress of wind driven rain/stormwater. Cover must have a minimum overhang of 1 metre but at least one third of roof height is provided, to prevent the intrusion of wind driven rainfall. Where such an overhang is impractical, walls are used.

School/ College Mechanical Classrooms

School mechanical classrooms generate wastewater that may contain traces of oil, hydrocarbons and suspended solids that may harm the sewerage system.

- Waste oil, degreaser and solvents are to be stored in blind containers for disposal off site at an EPA Licenced facility.
- All oils, fuels, concentrates and chemicals should be contained within an impervious bund designed to the Bunding and Blind Tank fact sheet.
- Only quick break detergents/degreasers are to be used.
- Waste strainer basket (maximum 3mm holes) with a fixed secondary strainer (maximum 3mm holes) installed at sink outlets.
- Floor waste fittings with a water seal in the work area are fitted with a strainer basket (maximum 3mm holes) and a fixed secondary strainer (maximum 3mm holes).
- All floor drainage, channels and washdown sinks are to discharge through an approved **1000L/h oil separator** installed to the Vehicle Washing Fact Sheet.

Swimming Pools

Trade waste discharges from school swimming pools could harm the sewerage system and pose a similar risk to that of commercial swimming pools. Discharges contain contaminants, which can exceed the Restricted Wastewater Acceptance Standards. The Swimming pool Fact Sheet should be referenced; in particular:

- **Small, regular discharges**, such as wastewater arising from the backwashing/cleaning of filters and water treatment devices and overflows due to rain are directed to sewer at **≤ 0.5 litres per second.**
- **Discharges greater than 20,000 litres** not specifically covered by a trade waste discharge authorisation must follow the Non-domestic Liquid Hauled Waste guideline. Non-domestic hauled waste charges apply for these discharges.
- Appropriate pre-treatment facilities may be required to achieve compliance with discharge quality limits.
- An annual stormwater acceptance fee will apply to uncovered school swimming pools. The current fee can be found on the Trade Waste Fees and Charges fact sheet.

Animal, Agricultural and Horticultural Classrooms

Animal, Agricultural, and horticultural classrooms, and washdown facilities generate wastewater that may contain large amounts of suspended solids and organic materials that may harm the sewerage system.

- Waste strainer basket (maximum 3mm holes) with a fixed secondary strainer (maximum 3mm holes) installed at sink outlets.
- Floor waste fittings with a water seal in the work/ wash down areas are fitted with a strainer basket (maximum 3mm holes) and a fixed secondary strainer (maximum 3mm holes).
- All solids (faeces, straw, hair/fur, food scraps, bedding etc) are collected before wash down of any animal enclosure and disposed of via a solid waste/manure bin.
- Solid waste/manure bins are designed or located to exclude stormwater/rainwater.
- All wash down areas are:
    - Constructed of impervious material, with a minimum 1:80 gradient to drain point.
    - Bunded and roofed to contain wash water and exclude rainwater from sewer. Walls may be employed, but where sides are left open, a minimum roof overhang of 1 metre for every 3 metres of height is required.
- If suspended solids (particles that would pass through a 3mm screen) are present, wastewater discharges via a suitably sized, approved settling tank or pit.
    - **The minimum size of an Animal classroom settling pit is 1000 L.**

More information

Mains Water Protection (AS/NZS 3500.1:2015)

Backflow Prevention Requirements - Office of the Technical Regulator

Restricted Wastewater Acceptance Standards

Stormwater Management - EPA

Trade Waste guidelines and fact sheets:

Commercial Food Preparation and Service

Laboratory and Clinical Practices

Masonry and Related Products

Bunding and Blind Tanks

Swimming Pools

Animal Holding Areas

Basic Pre-treatment devices – Design, Installation and Accessibility

Approved Basic Trade Waste Pre-treatment Products

Trade Waste Fees and Charges