

Contaminated Sites Trade Waste Guideline No. 45

INTRODUCTION

Trade waste discharges from Contaminated Sites have the potential to adversely affect the sewerage system. Waste waters from contaminated sites may contain suspended solids, heavy metals, petroleum hydrocarbons, solvents or a combination of chemicals. For the purposes of this Guideline, 'contaminated sites' refers to the disposal to sewer of

- Treated landfill leachate
- Treated ground/surface water from land decontamination
- De-watering of construction site excavations

Unauthorised disposal to sewer of surface water contravenes Section 55 of the [Sewerage Act 1929](#) and unauthorised disposal to underground/sub-surface water to sewer is deemed to contravene Regulation 20(2)(i)(ii) of the [Sewerage Regulations 2011](#).

However, where the contaminated ground or surface water would result in a detrimental impact on the environment, but is amenable to the sewage treatment process, sewer disposal may be approved subject to conditions in this Guideline.

KEY TRADE WASTE QUALITY REQUIREMENTS

PARAMETER	GENERALLY ACCEPTED LEVEL
Total Dissolved Solids	Dependant on the impact at receiving Waste Water Treatment Plant.
Suspended Solids	<500 mg/L
Benzene	< 1.0 mg/L
Ethyl Benzene	< 2.0 mg/L
Toluene	< 2.0 mg/L
Xylene	< 2.0 mg/L
Total Petroleum Hydrocarbons	< 20 mg/L
Lead	< 1.0 mg/L*

**Allowable concentrations of Lead and other Heavy Metals will be dictated by the degree of bioaccumulation / inhibition of biological processes at the receiving Waste Water Treatment Plant.*

SITE TREATMENT PLAN

Operators submit a contaminated site treatment plan for approval by the Trade Waste Branch. The plan typically incorporates the following points:

- The nature of the waste water to be treated
- Pollutant type and concentration
- Any interfering agents which may inhibit treatment or analysis
- Site plan showing the affected area, bore hole locations etc.
- A pre-treatment strategy, which addresses all contaminants of concern.
- Appropriate safeguards to prevent clean ground or surface water from entering the contaminated zone during cleanup.
- A sampling schedule and cost calculation method is negotiated between the parties prior to commencement of operations.

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Further information
(08) 7424 1336

www.sawater.com.au
tradewastebranch@sawater.com.au

TYPICAL PRETREATMENT

- All treatment tanks, chemicals and stored waste products are stored in a bunded compound (see [Trade Waste Bunding Guideline No. 4](#)).
- A tank with lockable outlet, for holding a representative volume of final effluent, is supplied. Samples from this tank are analysed to confirm waste water quality.
- Pumps used for petroleum/oil contaminated water are of the positive displacement, intrinsically safe type.
- A flow meter is installed to measure the volume of groundwater disposed to sewer. The meter is accessible at all times to Trade Wastes Officers for taking readings. Meters are placed as close as possible to the final discharge point and constructed of material unaffected by the waste water pollutants.

TYPICAL OPERATION

- Operators may use batch treatment as per [Trade Waste Batch Treatment Guideline No. 17](#). A [Batch Treatment Waste Notification Form](#) is submitted to the Trade Waste Branch at least 24 hours prior to any disposal of waste water to sewer. This option provides maximum control.
- Continuous discharge may be considered if electronic sensors would effectively manage discharge quality on an ongoing basis (e.g. pH, conductivity, headspace gasses – as appropriate). In such arrangements, the sensor is linked to a controller capable of ceasing discharge if maximum thresholds are exceeded. However, all initial discharges are made on a batch basis. Provided analyses meet requirements on a consistent basis, continuous discharge will be approved. Once approved, the operator carries out regular sampling and analyses, with all results supplied to the Trade Waste Branch.
- The Trade Waste Branch also undertakes random monitoring to verify performance.
- All analyses are undertaken by an approved NATA registered laboratory.
- Flow rates to sewer are regulated to prevent sewer surcharging.
- Discharge to sewer complies at all times with [Standards of Acceptance of Liquid Waste to Sewer](#) or discharge limits determined by the Trade Waste Branch. Contaminant concentrations exceeding Acceptance limits undergo further treatment or disposal by a licensed liquid waste contractor.

FEES AND CHARGES

- The costs of sampling by Trade Waste Branch and subsequent analytical and administrative costs incurred by SA Water are borne by the operator.
- The cost of disposal to sewer of successfully treated groundwater is charged to the operator in accordance with the [current prescribed rates for hauled waste](#).
- Billing frequency is negotiated between the parties before commencement of the operation.
- Should the accounts rendered by SA Water to the operator fall into arrears at any time, SA Water may immediately suspend further discharges upon giving written notice to all parties involved.

ADDITIONAL INFORMATION

Mains Water Protection (AS/NZS3500-2003 Part 1), [Trade Waste Blind Tank Guideline No.3](#), [Trade Waste General Policy](#),

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