

Tanning

Trade Waste Guideline No. 20

INTRODUCTION

Trade waste discharges from companies performing tanning activities have the potential to adversely affect the sewerage system. Wastewater from tanning and related processes can contain high levels of suspended solids, biochemical oxygen demand (BOD), oils/grease, ammonia and fluctuating pH levels.

For the purpose of this Guideline, 'tanning' refers to the chemical and physical process by which animal skins and hides are rendered suitable for human use. This Guideline pertains to all tanning operations, but excludes wool sites where wool scouring is the sole process.

KEY TRADE WASTE QUALITY REQUIREMENTS

PARAMETER	GENERALLY ACCEPTED LEVEL
Suspended Solids	<500 mg/L average
Grease/Oil	<100 mg/L
Biological Oxygen Demand	<1000 mg/L
Total Dissolved Solids	<1500 mg/L
pH	Between 6-10 units
Temperature	<38°C
Sulphide	<5mg/L
Hexavalent Chromium / Total Chromium	<10mg/L / <20 mg/L
Ammonia	<50mg/L
Flow rate to sewer	Dependant on capacity of receiving sewer

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

BEST PRACTICE MANAGEMENT ASPECTS

- Waste minimisation measures and practices in place to reduce wastewater loadings on the sewerage system e.g. process green hides/skins in preference to salted stock.
- Waste streams segregated for recycling and/or individual treatment e.g. chromium liquor.
- Work areas dry cleaned/swept to remove coarse solids before wash down.
- All wastewater prevented from entering the stormwater system.

TYPICAL PRETREATMENT

- Pre-treatment plant incorporates equipment for:
 - Screening
 - Grease /oil and suspended solids removal
 - pH correction
 - Sulphide oxidation (if applicable)
 - Heavy metal removal (if applicable)
 - Flow equalisation and
 - Solids/ sludge dewatering.

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- The operator maintains records that substantiate the correct disposal of spent chemicals (see [Trade Waste Blind Tank Guideline No. 3](#)) and solid wastes produced on site.
- All chemical/ solvent storage areas, process and waste tanks are bunded in accordance with the [Trade Waste Bunding Guideline No. 4](#)
- Where the treatment of sulphide wastewaters is undertaken in accordance with Batch Treatment Policy:
 - Each batch is tested for sulphide levels prior to discharge to equalisation tank.
 - A log indicating batch number, time, date, volume and detected final sulphide level is kept and made available to Trade Waste Branch.
- Treatment to reduce ammonia to an acceptable level for discharge may be necessary.
- Dye solutions should be totally recycled in a closed loop system. Discharge of dye contaminants is only acceptable from product rinsing steps.

ADDITIONAL INFORMATION

Mains Water Protection (AS/NZS3500-2003 Part 1), [Trade Waste Batch Treatment Guideline No.17](#), [Trade Waste Cooling Water Guideline No.16](#), [Trade Waste General Policy](#), [Standards of Acceptance of Liquid Waste to Sewer](#).

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