

Fruit and Vegetable Processing Trade Waste Guideline No. 33

INTRODUCTION

Trade waste discharges from companies processing bulk fruit and vegetables for consumption have the potential to adversely affect the sewerage system. Appropriate management practices at each site are therefore necessary. This Guideline outlines the areas of concern and available technologies for the control of trade wastes.

KEY TRADE WASTE QUALITY REQUIREMENTS

PARAMETER	GENERALLY ACCEPTED LEVEL
Biochemical Oxygen Demand	<1,000 mg/L
Suspended Solids	<500 mg/L average
pH	Between 6-10 units
Total Dissolved Solids	<1,500mg/L
Flow rate to sewer	Dependant on capacity of receiving sewers

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

BEST PRACTICE MANAGEMENT ASPECTS

- Only clean raw produce from farms is accepted if possible (e.g. washed potatoes, carrots etc).
- Dry cleaning of floors, equipment and tanks prior to wash down/disinfection. Collected material is removed for solid waste disposal.
- Water conservation measures enable treatment of a smaller volume of waste water (e.g. reuse of 'clean' waste water for wash down, efficient spray design).

TYPICAL PRETREATMENT

- Effective screening of all waste water to remove coarse particulate matter (e.g. static wedge-wire screen, rotating drum screen or equivalent, possibly with auto-cleaning option).
- Gravity separation of fine particulate matter (e.g. settling pit or clarifier).

ADDITIONAL PRETREATMENT

- Cyclonic grit removal stage to remove larger particles
- Pumping of waste water through hydro-cyclones to remove fine solids, starch and oils above 20-micron size.
- De-foaming agents may be required to reduce starch foam within the pre-treatment system and reduce solids carry over.
- Addition of chemicals such as a coagulants and polymers to aid suspended solids removal and reduce organic loadings. Especially for wastewaters from potato processing.
- pH correction if necessary.
- Dewatering of solids by a belt/ plate press or other suitable means to minimise solid waste removal costs.

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MAINTENANCE

- It is the responsibility of site management to ensure the effective operation of all pre-treatment equipment (e.g. regular cleaning, chemical replacement, sludge removal).

ADDITIONAL INFORMATION

Mains Water Protection (AS/NZS3500-2003 Part 1), [Trade Waste Bunding Guideline No.4, Standards of Acceptance of Liquid Waste to Sewer](#), [Trade Waste General Policy](#) and Fact Sheet: [Trade Waste Charges](#)

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