Food Processing Industry - Abattoirs

Typical water cleansing issues

- Contaminant material present in the wastewater includes traces of blood, paunch waste, oil and grease – these all contribute to high Trade Waste charges.
- Costly residual Chemical Oxygen Demand/Biochemical Oxygen Demand.
- Total Kjeldahl Nitrogen and Suspended Solids post effluent treatment are often major concerns.
- Total Oxidised Sulphur and suspended solid and semi-solids post effluent treatment can extrapolate to non-compliance and significant cost.
- Residual Oils, Fats and Grease discharged to the sewage conveyance network behave as an accumulating organic load leading to Septicity, Odour and Corrosion Issues within the pump wells and the network in general.
- These issues lead to increased Maintenance and Labour Costs; increased Operating Costs; and a reduction in the Life of the Plant and its Capital Equipment.

Our Solution

- Application of Solutek Organic Concentrate into selected parts of the Abattoir’s wastewater treatment system.

Expected Results

- Reduction in Total Suspended Solids.
- Substantial reductions in Oil and Grease with a resultant cleaning of wastewater pipes.
- Significant reduction in Chemical Oxygen Demand.
- Reduction or elimination of Odour within the plant.
- Reduction in Kjeldahl Nitrogen.
- Aerobic and Homogeneous effluent presented to the treatment plant.
- Reduction in Operating Energy costs; reduction in maintenance costs and extended plant life.

Other Major Benefits

Solutek is 100% bio-degradable, is user and environmentally safe, non-corrosive, non-hazardous, non-flammable and non-corrosive.

Our Organic Concentrates comprise elements extracted from sustainably harvested, naturally occurring marine flora. They do not contain ‘live-cell’ bacteria (bio-culture) or enzyme concoctions and cannot introduce renegade bacteria into your system.
Food Processing – Abattoir Case Study

M. C. Herd Pty Ltd
Corio, Australia

Background

- Our objective was to improve the quality of waste water from the abattoir.
- The contaminant material present in the waste water prior to the introduction of Solutek Organic Concentrate included traces of blood, paunch waste, oil and grease etc. which contributed to Trade Waste charges.
- The plant operated a treatment process consisting of Coagulation, twin DAF’s, Trickling Filter and Filter Press to treat the effluent produced prior to discharging to the local Water Board sewer. However, residual Chemical Oxygen Demand/Biochemical Oxygen Demand, Total Kjeldahl Nitrogen, Total Oxidised Sulphur and Suspended Solids post effluent treatment was a concern and extrapolated to periodic non compliance and a significant cost to the business.
- The amount of residual Organic loading, once discharged to the sewage conveyance network was potentially leading to septicity, odour and corrosion issues within the network in general.

Results

Following the introduction of Solutek Organic Concentrate to the waste water, significant reductions were found in Suspended Solids, Total Kjeldahl Nitrogen and Chemical Oxygen Demand. There was a significant reduction in odour and in oil and grease.

Details and Outcomes

Details

- Total Flow Rate: 750,000 L/day
- Solutek Dose Rate: 16 mg/L (Waste water)
- Dosing Points No.: 1 (Main influent pit)
- Total Solutek Dose: 12 L/day

Outcomes

- Substantial (82%) reduction in Suspended Solids
- Substantial (89%) reduction in Oil and Grease
- Reduction (66%) in Total Kjeldahl Nitrogen
- Reduction (22%) in Chemical Oxygen Demand
- Reduction in Odour within the plant