

## **BIO-TECH**

With the advent of global warming, changing weather patterns, European legislation and increased environmental awareness by the public, event and waste of any kind is proving more and more costly to dispose of. For businesses and industries that already have to conform to IPPC, and those currently having to, all are well aware of the rising costs and the impact on profitability.

Major concerns in liquid (waste) event streams include; Odours, Fats Oils and Grease,  $H_2S$  discharge, Chemical Oxygen Demand (COD), Biological Oxygen Demand (BOD), Sludge, Phosphate and Nitrate contamination. Advetec Limited, have developed products that are not chemical or bacterial, but are blends of naturally occurring plant matter that invigorate indigenous bacteria and stimulate the metabolic processes to work more efficiently.

These unique and apparently simple products are dispensed into the waste stream via the unique Advetec dispenser, which is manufactured in the UK. The effects of invigoration are that bacteria digest oils, grease, solids and other organic matter within the effluent stream. Odours are reduced as the anaerobic activity is suspended. COD and BOD are dramatically reduced as a result of cleaning the effluent stream. In addition, the volume of sludge, fats, oils and grease, that are collected, can be reduced by up to 80%.

## Bio-stimulant technology - how it works

Advetec products work biologically as cell activators. They increase the metabolic rate of most micro-organisms and, by doing so, are responsible for a reduction in nutrient levels per unit of time within a wastewater and/or sludge environment. Advetec products are manufactured from all natural plant extracts. The products meet all EA (Environment Agency) requirements for discharge into class 1 water (drinking water) based on independent laboratory (EPA Certified) tests.

Advetec products, by increasing the metabolic rate of micro-organisms, directly cause them to utilize more food (waste) in any given time period. The result of this is a reduction in overall organic load, a lessening of the total solids and a reduction in the BOD/COD. A concurrent reduction in sludge volume is also a result of greater utilization of the waste per unit of time. Additionally, stimulation of the resident bacteria further aids in the reduction of fats, oil and grease problems that occur in the collection system and pump stations.

By increasing the respiration of bacteria (primarily the aerobic bacteria) Advetec products have proved to be effective in reducing the hydrogen sulphide odour in the anaerobic slime layer in sludge.



