

Case Study: Kerry Ingredients – Johor, Malaysia

Biochemical Oxygen Demand Reduction for the Food and Beverage Industry

Baswood's Small Footprint Solution

Background

The production facility for Kerry Ingredients in Johor Bahru, Johor in Malaysia had an aging wastewater treatment plant that was struggling to maintain efficient treatment as production expanded. Kerry knew that their wastewater treatment capabilities needed significant upgrading with an emphasis on improved biochemical oxygen demand (BOD) removal. With very limited space available and a requirement for continuing operation of the existing wastewater facility while construction and installation of any new equipment occurred, the design specifications presented a significant challenge.

Solution

The Baswood BioViper™ was determined to be ideally suited to meet each of the design requirements for the Kerry wastewater plant upgrade. The BioViper™ is a stable, fixed-film biological system that can reduce BOD while producing minimal sludge. Its small footprint and flexible layout meant that it could pair perfectly with the limited space available for wastewater treatment at the Kerry facility. Since the Baswood BioViper™ does not require any unique, specialized influent characteristics, it was easily able to integrate with the existing equipment and treatment technologies.

The final plant treatment design included equalization tanks, pH adjustment, a dissolved air floatation system, the Baswood BioViper™, clarifiers, a filter press, and an odor control system. Baswood was able to use its expertise and flexibility to assist Kerry in maintaining complete operation of the existing plant throughout all construction and installation of new equipment.

Results

The new, upgraded Kerry wastewater facility is successfully meeting all required effluent parameters for discharge to the local waterway. Kerry is seeing up to 99% removal of BOD of flows averaging 60,000 gallons per day. The Baswood remote monitoring and remote alarming notification system allow the management team at Kerry to have real time access to plant operations data allowing them to better support the operations team.

The Baswood BioViper™ has given Kerry's wastewater treatment plant the flexibility it needs to treat the constantly changing flows from a demanding production environment.

