



FLAGSHIP ECOSYSTEMS PRIVATE LIMITED (FES) CORPORATE PROFILE

Introduction

Incorporated in 2005, Flagship EcoSystems (FES) is an established industrial effluent treatment systems integrator specialising in electro-coagulation (EC), a unique waste water treatment profile.

FES has capabilities in designing complete waste water treatment solutions by combining various effluent treatment systems such as the electro-coagulation, biological, chemical processes and membrane filtration, offering its customers a wide and comprehensive range of solutions, tailored to suit their various needs – ranging from basic effluent treatment for discharge to effluent re-cycling for water reuse.

The Company is experienced in handling the design, engineering, procurement, construction and operation of new Effluent Treatment Plants (ETP) and possesses expertise in retrofitting existing ETP to increase the flow rate and treatment capability without major infrastructure increase.

The technologies and solutions employed by FES are developed in-house and examples of these are its proprietary Trident™ Electro-Contaminant Removal (ECR) system, the Stage Contaminant Removal (SCR) process and Mobile On-Site Waste-Water Treatment (OWT) units.

Founded and headquartered in Singapore, FES has projects and operations in Bangladesh, Indonesia and other countries in Asia Pacific.

Trident ECR

The Trident ECR units are wholly designed and manufactured in Singapore. The ECR systems come in various sizes for different flow-rates ranging from 5m³/hr for the smallest T-5 Unit and 180m³/hr for the T-60 Unit. These units are modular and skid mounted allowing them to be configured and easily modified to handle any flow-rate required. Operating cost for ECR Units have proven to be at least 20-40% less than conventional coagulation/ flocculation systems. The unit is designed to remove a whole spectrum of contaminants from wastewater, including Chemical Oxygen Demand (COD) / Biochemical Oxygen Demand (BOD), heavy metals, colour, oil & gas, and many others. These factors have made ECR Units a preferred system by many Oil & Gas Operators and Textile Factories. The Trident ECR has been applied extensively across 8 industries.

CETP and Textile Experience

In Bangladesh, FES owns and operates a Central Effluent Treatment Plant (CETP) under a 30 Year Build-Own-Operate agreement with the Dhaka Economic Processing Zone Authority to treat all the industrial effluent generated by factories in the Industrial Zone. The CETP has an effluent treatment capacity of up to 43,000m³/day. The Plant has been operational since February 2012.

Over 30 individual Textile factories are using our Trident ECR Units. These range from 60m³/hour to 200 m³/hour units and covers various dyeing and washing factories such as knit, woven and denim.

Oil & Gas

In Indonesia, FES has established itself as a premier service company in handling waste water generated from Exploration (Drilling) and Produced Water. Customers in Indonesia include major Oil & Gas companies such as Pertamina, Chevron, Petro-China and Medco. Operations in Indonesia are provided by both mobile and fixed units. At drill sites where waste-water recycling is required, FES supplement these treatment units with skid mounted mobile Reverse Osmosis systems.

Besides treating waste-water from Drilling Mud, FES also handles waste mud/cuttings de-watering and disposal. Centrifuges, Hi-G Shakers and Basket Dryers are used in these operations. This is known as Total Drilling Mud Waste Management (TWDM) Solution.

Other Industries

FES' ECR units are also used in the F&B and Automotive industries in countries such as India and Korea.

Company Info/Personnel

The FES Singapore office provides manufacturing, logistics, finance, HR and Engineering services to support its subsidiaries and operations overseas. The Company's senior management team resides at the Singapore office. Actual manufacturing in Singapore is out-sourced.

FES owns a subsidiary in Indonesia – PT Ecosystems International (PT ESI). PT ESI undertakes all projects in Indonesia.

Operations in Bangladesh are handled by Flagship Dhaka CETP (FDC). FDC is the contract holder for the CETP Project. FDC also partners with National Environmental Controls (NEC) for the sale of its ECR and UF/RO systems.