

ENVIRONMENTAL TECHNOLOGY

SEA invest - Abidjan (Ivory Coast) Treatment of wastewater from terminal facilities

SEA-invest grew into one of the world's largest terminal operators for dry bulk, fruit and liquid bulk with worldwide stevedoring, transport and warehousing activities. SEA-invest is active in no less than 25 ports spread across two continents, including different ports in Africa.



Abidjan, Ivory Coast, is a raising economical hub in West Africa where SEA-invest tranships 100.000 tons of ores each year. The raw materials are supplied by overland traffic from Burkina Faso, about 1300 km away.

Two kinds of wastewaters are produced by the storage and transhipment of the ores. On the one side a certain amount of rain water is entering the dry bulk stored outside and particular substances (like some metals) will leach and contaminate the storm water. On the other hand all trucks are cleaned in a "wheel wash" when leaving the site. The wastewater is mainly contaminated with zinc, cadmium and lead.

TREVI provided the design, realisation and startup of a mobile physicochemical treatment in stacked containers, to be able to treat a design flow of $15 \text{ m}^3/\text{h}$.

The wastewater is collected in a buffer tank of 500 m³ and next treated by means of the physicochemical reaction tanks housed in the container modules.

The purified water is stored in a buffer tank of 300 m³. From here the water is reused in the "wheel wash" reducing the total consumption of potable water.

The installation was almost completely built in advance and assembled in one 40" container and two 20" containers, which were finally stacked and connected on site.

To face the enormous challenges of long term management Trevi provided among others the use of local available and maintenance friendly products, a comprehensive training after start-up and an interface via internet for an adequate follow-up.

Reactor tanks

Dosing station



Stacked container modules

trevi

Trevi nv Dulle-Grietlaan 17/1 9050 Gentbrugge Belgium T +32 9 220 05 77 F +32 9 222 88 89 E info@trevi-env.com S www.trevi-env.com ISO 14001 ISO 9001 VCA BE 0447.717.158

Trevi is a Belgian company with a team of specialised professionals at its disposal: environmental consultants, process experts, programmers and installers. This diversity offers you as a client the advantage to solve all environmental problems with only one partner in all disciplines: water, air, soil and energy as well. Our consequent approach by research, pilot tests, design, realisation, start-up, follow up and exploitation guarantees the provided quality.