

ECOSORB® 606 - THE BEST SOLUTION TO ODOR CONTROL: Waste Water Plant Application

Sewage and industrial plants, which are located near residential areas, can be subject to political and legal problems, if these facilities produce unpleasant odors. In the case of a sewage plant and the associated collection system, ECOSORB® 606 is used to control odors.



In Malta Waste Water Plant we installed a High Pressure System to dose ECOSORB® 606

The substances, which are responsible for the diffusion of odors into the atmosphere in the vicinity of treatment plants, are generally inorganic gas products or highly volatile organic compounds. The inorganic products are mainly the result of biological activity in sewage and the organic compounds are often caused by the presence of

industrial waste, in the sewer.

The following compounds are associated with bad odors:

- Mercaptans,
- Inorganic acids,
- Aldehydes,
- Ketone
- Organic compounds which contain nitrogen or sulfur

atoms.

These compounds are a result of the anaerobic decomposition with a high molecular weight, especially proteins and are recognized as being among the causes of bad smelling odors at the outlet of sewer lines and in treatment plants in general.

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Ammonia and hydrogen sulfide, which are the inorganic compounds, are considered to be the main cause of odor, when the sewage comes mainly from households.

In gravity sewer systems, in which the speed of the sewage flows, thus allowing for continuous reaeration, there is no significant production of hydrogen sulfide or other odor causing reasons.

Under such circumstances, however, it has been determined that odors can still find favorable conditions to form the sludge film that covers the submerged surface of the sewer lines. The hydrogen sulfide, which is formed in these areas, diffusing into the overlying sewage, lowers the redox potential, counter-balancing the opposite effect of the natural reaeration.

Therefore it can be understood how septic conditions may arise in low-speed sewage which trigger very intense activities on the sulfate-reducing bacteria.

These conditions can become more severe if the col



A spraysystem was installed; the picture shows a nozzle detail

lection lines are particularly long and the system is located in a region that experiences high temperatures.

Sewage and wastewater odors are more often associated with hydrogen sulfide and ammonia. ECOSORB® 606 is the solution against these odors. In typical airborne applications of ECOSORB® products, the atomized (High Pressure System) or vaporized (Vapor Phase System) material is carried into the atmosphere where it attracts, or is attracted to

the odors in the atmosphere; whether it is a pleasant, malodor, or particulate odor. The selection, of which method works best, depends on the concentration of the odor causing compounds, the air flow rate, the area of the system and the capital budget. In any event, the odor is eliminated.

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MALTA WASTE WATER PLANT

The waste water plant in Malta was built two years ago. Immediately after construction, they were confronted with odor problems. In particular, in the primary settlement (60,000m³/day of sewage) - which deals with crude sewage, originating from sedimentation pools. Furthermore, the long summer, with high temperature, increased the unpleasant odors. The manager was forced by the population of the village, which was built very close to the plant, so solve the odor problem.

ECOSORB® 606 was proposed for a trial.

We installed a High Pressure System to dose ECOSORB® 606. A spray system was installed on the perimeter of the pools in order to cover all area on the pools. More than 90 nozzles were fixed onto the perimeter to have a perfect distribution of ECOSORB® 606 droplets, to neutralize the odor molecules.

The trial with ECOSORB® 606 was successful and the equipment was purchased for permanent installation.

The ECOSORB® 606 dosage is intermittently based on a variety of factors including temperature, wind speed and direction, and potential for odor complaints.

ECOSORB® 606 Remarkably effective.... surprisingly simple