Project Case Study

Project

Aldinga Waste Water Treatment Plant

Project Summary

Substrate

Concrete

Surface Preparation

High Pressure Wash

System

Dulux Luxachlor HB

Project Description

Hydrogen sulphide gas is created by microbial degradation of organic matter in an anaerobic environment. This gas is then oxidised to sulphur dioxide when it reaches oxygen rich areas such as treatment plants and pump stations.

The sulphur dioxide gas dissolves in water and produces sulphuric acid. Sulphuric acid is highly aggressive towards an alkaline material such as concrete and as a result produces major corrosion damage. Rehabilitation of old corroded structures with high build epoxy mastics & mortars is now a well established and proven technique conducted by Poly-Tech. The epoxy lining of new structures is also becoming increasingly commonplace in waste water design.

Poly-tech was awarded the concrete coatings contract for Aldinga Waste Water Treatment Plant by Leed Engineering and had to apply a specified Dulux Luxachlor HB and Luxachlor system.

Poly-Tech's surface preparation of the pit walls, base, inside lids and blocks was of critical importance. The main objective being to attain an effective and credible system that's sound, clean and void free. Multiple moisture checks pre application were carried out then a high pressure was used to ensure issues like outgassing and excessive moisture content were minimised.

The epoxy system was then carefully applied to the linings of the walls and lids in accordance with the engineers strict time, budget and specification constraints.

In general Poly-tech's main objective was to successfully apply a high build coating that gave longevity of protection whilst at the same time minimising vapor transmission that could potentially create future voids in the surface.

The concrete protection & restoration specialists

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