

City of Dunedin wastewater treatment works

Case study

Focus products: Intercrete® 4802, Intercrete® 4820, Intercrete® 4840

Location: Florida, USA

Client: City of Dunedin, Florida, USA

Contractor: Universal Painting

Summary: Reinstatement of and protection of concrete clarifiers from waste water



Background

The city of Dunedin's Wastewater Treatment facility processes over 6 million gallons of wastewater each day, and was experiencing severe degradation of the concrete within its two clarifiers.

The concrete was made using limestone aggregate, which was being severely eroded by the acids in the effluent and the chlorine added as part of the treatment.

The solution

Intercrete 4840, an advanced cement and epoxy modified polymer coating was chosen to provide long term protection in this aggressive environment because of its excellent chemical and abrasion resistance. Following removal of contamination and unsound concrete, Intercrete 4802, a rapid setting repair mortar, was used to reinstate the weirs and effluent troughs prior to the application of Intercrete 4820, a cementitious fairing coat for filling minor defects. 2mm of Intercrete 4840 was then applied to provide long term protection. Work on the first clarifier was completed in 2004 and the second treated the year after. An inspection in 2007, has shown the system to be performing well.