

Acid and Alkali Tanker **Unloading Area**

Power-Fossil — Water Treatment ARC 988 and S4+ Coatings Case Study 066

Challenge

Issue

Unprotected concrete was being degraded by frequent acid spills during unloading. If left unaddressed new concrete construction would be required to avoid environmental fines.

Goals

Provide long term solution to protect concrete under severe chemical and mechanical attack

Root Cause

Spillage of 50% NaOH and 33% HCL from offloading operations caused severe degradation of the concrete.

Solution

Preparation

- High pressure water blast concrete slab.\
- Abrasive blast metal areas (drains, grates, etc) to Sa 2.5 with 3 mil (75 μ m) profile

Application

- 1. Trowel apply ARC 988 at minimum 6 mm thickness to concrete
- 2. Roller apply ARC S4+ at DFT of 20-30 mils $(500-760 \ \mu m)$ to metal grating over sumps

Results

Client Reported

- 6 years of problem free service
- No detectable mechanical damage
- No evidence of chemical degradation
- Client quote: "The coating is performing exceptionally well."



Concrete slab following surface preparation



ARC 988 being trowel applied



The area 6 years after installation

Technical data reflects results of laboratory tests and is intended to indicate general characteristics only.

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