

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 µm) 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 µm) 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