

Challenge

Issue

Regular spills of acid damaged existing coating and underlying concrete after 1 year. Safety risk in traffic areas, and associated environmental fines, were also present.

Goals

- Protect concrete infrastructure against regular leaks from acid leach tanks
- Minimize safety risk and environment fines

Root Cause

30% H₂SO₄ attacks cement in concrete, damaging sumps, tank pads, and pump bases.



Pre-existing condition of concrete

Solution

Preparation

- Pressure wash and decontaminate concrete
- Mechanically roughen to CSP3 finish

Application

1. All surfaces primed with **ARC 797**
2. Pitch to grade and top coat with a .25" (6,4 mm) of **ARC 988** system



Initial application completed in 2002

Results

Client Reported:

- Achieved goal of protecting concrete from acid leaks
- Safety risks from damaged concrete addressed
- ARC coated and lined surfaces are damage free for over 8 years
- Client continues to use **ARC 988** as preferred lining system for concrete protection in all plant areas exposed to acid



ARC coated surfaces with minimal repairs indicated in 2010