

# Challenge

#### Issue

Damage to carrying ring surface caused excess vibration and premature bearing failure of rake arm, requiring unplanned clarifier shut downs. Conventional concrete repair would require 21 days to complete.

### Goal

 Restore concrete carrying ring surface in under 10 days vs. quoted 21 days

### **Root Cause**

Damage from condensing  $H_2SO_4$  reacting with cement paste causing damage to concrete.

# Solution

### Preparation

 Surfaces high pressure water blasted at 8-10k psi (535-670 bar)

# Application

- 1. Screed strips installed to maintain width and flatness
- 2. Apply ARC 797 Primer by roller
- 3. Apply ARC 791 by screed box at .25" (6.4 mm) and finish with trowel

# **Results**

### **Client Reported**

- Work was completed within 3 days vs. 21 days
- Clarifier ring surface required no repairs since 2002

## Benefits

- Reduced shutdown by >2 weeks
- Eliminated cause of bearing failure



Corroded concrete with exposed rebar



Surface cleaned and damaged concrete removed



ARC 791 being applied with screed box

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

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