

Challenge

Issue

Flue gas desulfurization units are highly corrosive and hard on equipment.

Goal

- Extend the life of absorber agitators made with expensive, super duplex alloy to operate in corrosive and abrasive desulfurization environments

Root Cause

Abrasive lime slurry at high velocity in high chloride environment.

Solution

Preparation

Abrasive blast surface to Sa 2.5 with 3 mil (75 µm) profile using aluminum oxide media

Application

1. Apply **ARC 855** as a primer
2. Apply **ARC BX2*** at 3 mm (120 mils)
3. Dynamically balanced impellers and rotating lances using **ARC BX2***

*ARC BX2 is the "Bulk" package size of ARC 897

Results

Inspection

Client reported positive results. Periodic inspection reports support an expected minimum of 3 year's performance before maintenance.

Savings Opportunity

Using less expensive alloy protected with **ARC Efficiency & Protective Coatings**.



Photo showing the mixer during operation



Mixer and lance with the applied ARC products



Design was modified to include additional support for the mixer and lance