

## Challenge

### Issue

Corrosion and abrasion of tile and coated frothing cell reduced reliability and efficiency of frothing cells, impacting production at coal preparation plant after only 18 months.

### Goals

- Reduce loss of ceramic tile in cell
- Prevent abrasion and erosion to improve plant reliability

### Root Cause

Agitated coal fines in water/hydrocarbon froth erode ceramic tile grout and corrode steel shell internals.



Frothing Cell

## Solution

### Preparation

- Grit blast to Sa 2.5 with 3 mil (75 µm) angular profile

### Application

1. Apply **ARC BX2\*** as tile grout directly under draft tube
2. Apply **ARC BX2\*** to sloped/vertical internal surfaces @ 1/8 inch (3 mm)
3. Apply **ARC S2** over **BX2\*** @ 10-15 mils (500-750 µm)
4. Apply 2 coats of **ARC S1PW** to the external surfaces. Total ~DFT: 30 mils (750 µm)

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



ARC BX2\* top coated with ARC S2

## Results

### Client Reported

- More than 24 months of optimal service with no loss of efficiency or plant productivity
- No further signs of tile grout erosion or tile loss
- ARC solution has protected 28 frothing cells



Frothing cell after ARC S1PW on outside