# Coal Screen Deck

Mining/Mineral & Ore Processing — Beneficiation ARC BX2\* and S2 Coatings Case Study 109

# Challenge

#### Issue

Corrosion occurs at weld seams, requiring welding within 3 years. Loss of screen deck structure can shut down plant.

#### Goals

- Provide an easy-to-apply erosion/corrosion resistant liner
- Increase service life to 48 months

### **Root Cause**

Urethane liners fail prematurely. Acidic wash water combined with erosive particulates attacks exposed steel at weld seams.



Damaged coal screen

## **Solution**

### **Preparation**

- Remove remaining urethane liners
- Decontaminate surface
- Grit blast to Sa 2.5 with 3 mil (75 μm) angular profile

## **Application**

- 1. Stripe coat all edges and welds with ARC S2
- 2. Spray two coats of ARC S2 @ 15 mils (375  $\mu$ m)
- 3. Apply ARC BX2\* @ 120 mils (3 mm) on top rails

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



ARC S2 grey applied to coal screen

## **Results**

## **Client Reported**

- ARC-lined screen decks have been in service for over 4 years without any required maintenance
- Service life increased by 33% to date
- Application cost reduced by 50%
- Annual maintenance costs cut by 30%



ARC BX2\* applied to top rails