FGD Limestone Ball Mill Chutes

Power-Fossil — Coal Fired
ARC MX1 Coating
Case Study 081

Challenge

Issue
Ball mill chutes made from carbon steel required annual replacement.

Goal
Eliminate the yearly replacement requirements

Root Cause
Highly abrasive dry limestone erodes the carbon steel.

Solution

Preparation
- Pressure wash and decontaminate surfaces
- Grit blast to Sa 2.5 with 3 mil (75 µm) angular profile

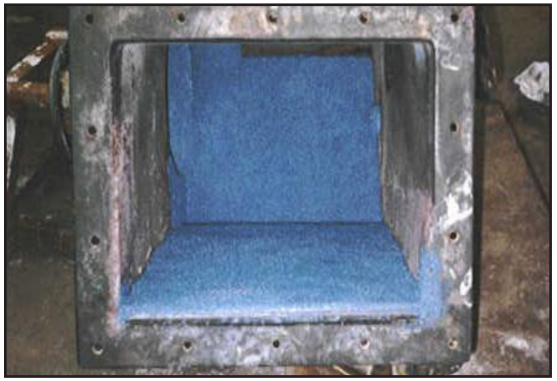
Application
1. Apply “high build” ARC MX1 at 6-10 mm (234-390 mils) to most critical and high wear areas of the limestone chutes and blades

Results

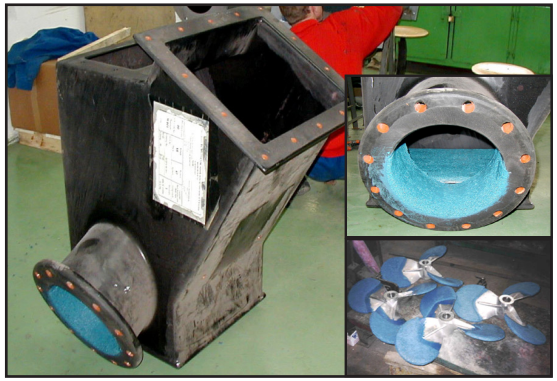
Equipment Savings
The use of ARC MX1 has eliminated the requirement to purchase 6 new chutes annually. Minor touch-up to the ARC MX1 is performed once per year.

Savings
Using ARC products to rebuild chutes and other equipment reduced annual plant operating costs by: $32.5K

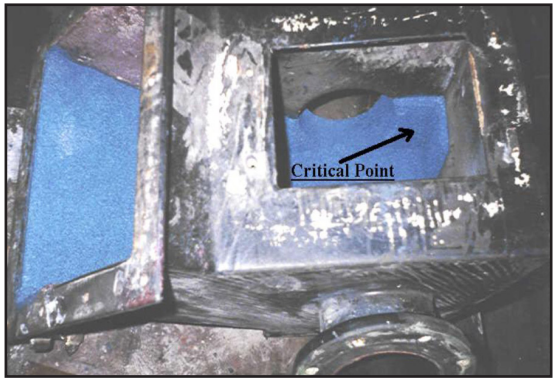
$=USD



FGD unit ball mill limestone chute with ARC MX1 lining applied to high wear areas



New chutes and mixer blades lined and coated with ARC MX1



Top view of ARC MX1 liner in limestone chute illustrating high wear area

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