Coal Pulverizers at a Coal Fired Power Plant

Challenge

Goals
■ Restore coal burner to optimum efficiency
■ Avoid stress cracking and fire hazards associated with weld repairs
■ Provide effective alternative to ceramic tiles which damage the mill when they disbond
■ Mitigate EHS issues caused by coal dust leaks

Root Cause
Abrasion from coal particles wears internal sections of pulverizers, reducing the performance of the mill.

Solution

Preparation
■ Abrasive blast mill parts on-site to a Sa 2.5 with 3 mil (75 µm) profile

Application
■ Apply 5 mm of ARC BX2* to high wear zones outside of grinding zone (dampers, chutes, doorways, throw-rings, classifier cones, exhauster pieces, outlet elbows)

Results

Inspection
After over 5 years of operation less than 5% of the total ARC protected area required repair.

Client Reported Cost Savings
Option 1:
Replace all worn components with new
Cost per mill: € 150,000

Option 2:
Applied ARC costs per mill: € 25,000
Savings per coal mill: € 125,000
Total savings for 8 coal mills: €1,000,000

*ARC BX2 is the “Bulk” package size of ARC 897

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