Sinter Plant Cyclones

Steel — Coking/Sintering/Iron Making
ARC BX1* Coating
Case Study 079

Challenge

Issue

Reduced MTBR of cyclones required wear plate replacement every 4-5 months. Each repair took 4 days to complete, resulting in 288 hours lost production.

Goals

- Increase MTBR by 2X
- Reduce lost production

Root Cause

Sinter flow at high velocity and temperature wore weld overlay.

Solution

Preparation

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

Application

- Trowel apply ARC BX1* 6-8 mm (.25"-.3") DFT to the internal surfaces of the cyclone

**ARC BX1 is the "Bulk" package size of ARC 890*

Results

Client Reported

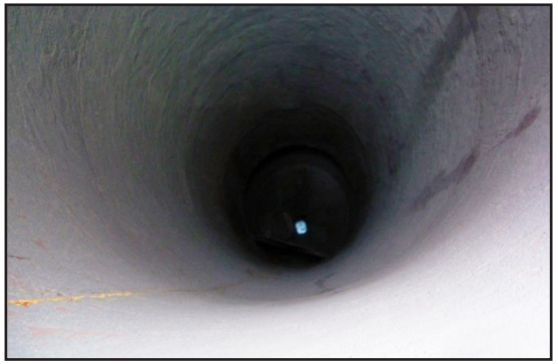
Minimal repairs required at 11 month inspection. In general <15% of lining thickness lost. All repairs completed within 24 hours.

Savings

- MTBR was increased to 3 years
- ARC solution saved >2,000 hours downtime over 36 months
- Production and maintenance costs dramatically reduced

Severe abrasive wear typically repaired by welding in new wear plates every 4-5 months

Application of ARC BX1 in one of the cyclones at 6-8 mm*



*After 11 months in service minimal wear is seen to the ARC BX1**

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