GE
Water & Process Technologies

Case Study

Control of Coke Oven Gas Fouling Saves Steel Mill US$73,000

Challenge

The coke oven gas used to fuel the 5 Maerz kilns at this Indian integrated steel mill's lime calcination plant was forming deposits at the kiln level ring main and orifice, restricting the gas flow and extending the calcination time. Daily cleaning was required of the rotary vane type boosters and the 1-mm orifices. Although Ferrameen* COG9020 had minimized downtime caused by jammed compressor blades and plugged burner nozzles from once a day to once a week, it was not sufficient to meet lime demand. An additional kiln was needed.

Solution

GE Water & Process Technologies conducted trails that demonstrated that Ferrameen COG9019 was much more effective at controlling COG fouling. Optimization of dosages based on response analysis, together with modifications to the chemical feed system and kiln operation, helped reduce chemical consumption.

Result

Chockage in the ring main and orifice was greatly reduced, improving kiln availability and reducing the shutdown frequency of the booster from 7 to 35 days. Downtime was reduced from 29% to 9%, chemical overfeed was eliminated, wastage minimized, and chemical usage reduced by 20% compared to the previous treatment program. The need to install additional capacity was eliminated. The net annual savings from these improvements totaled US$73,000.

Find a contact near you by visiting gewater.com or e-mailing custhelp@ge.com.

Global Headquarters
Trevose, PA
+1-215-355-3300

Americas
Watertown, MA
+1-617-926-2500

Europe/Middle East/Africa
Heverlee, Belgium
+32-16-40-20-00

Asia/Pacific
Shanghai, China
+86 (0) 411-8366-6489

CH514EN 0604