

Ultra-Low Emissions, Sintering and the additional benefit of using Fortescue Ores

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ABSTRACT

In 2019, the Chinese Ministry of Ecology and Environment issued guidelines promoting the implementation of ultra-low emissions in the iron and steel making industry. These guidelines aim to drive improvements in air quality through the reduction of particulate matter, SO_x and NO_x. Secondly, it also represents an initial means to commence decarbonisation of the industry. The ultra-low emissions guidelines propose that well over 80% of China's production capacity will achieve these targets by 2025.

In response, many sintering operations have implemented numerous process efficiencies. Of note is the adoption of deep bed sintering where with some modifications, the depth of the sintering bed is increased resulting in significant reductions of SO_x and NO_x.

This paper will provide an overview of testwork completed with a major steel company which quantifies emissions by adopting deep bed sintering and demonstrates additional benefits by using Fortescue ores in the process, in this case West Pilbara Fines.