

# RFCS - PREVENTION OF DIFFUSE DUST EMISSIONS IN INDUSTRY

## RFCS FUNDS A PROJECT ON PREVENTION OF DIFFUSE DUST EMISSIONS IN IRONMAKING PLANTS USING DUST SUPPRESSANTS AND DESIGN OPTIMISATIONS

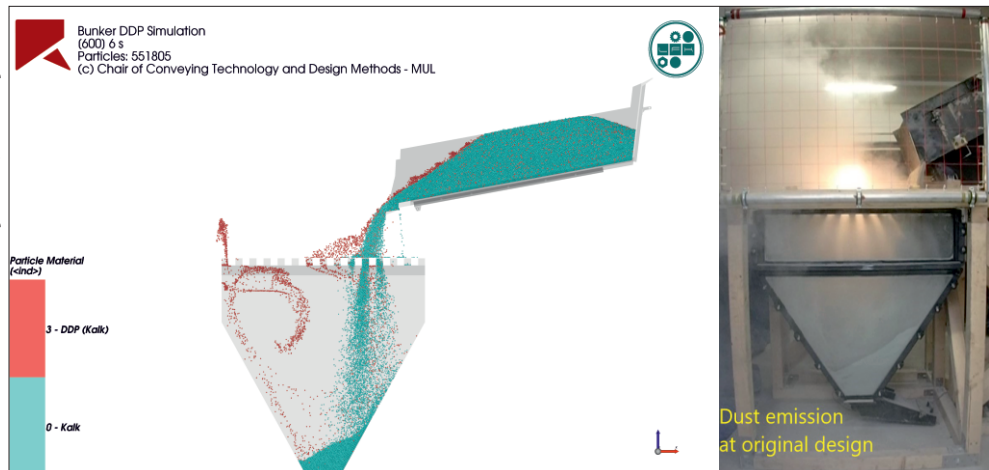
Dust emissions are an issue in various sectors and especially crucial when handling bulk material. Continuous and discontinuous bulk material flow processes are critical topics according to dust emission. Advancing industrialization leads to increasing emissions of dust, therefore, environmental regulations are becoming stricter. Particulate material within the air has to be reduced, especially because of issues relating to environment and human health. Furthermore, the economic aspects due to material loss, necessary maintenance, active dust control, etc. cannot be neglected. A further problem is the danger of dust explosions, which is of concern to the combustible-dust processing industry (e.g. coal). A consortium consisting of the European steel producers (ArcelorMittal, TATA, ThyssenKrupp and voestalpine), a project coordinator (VDEh Betriebsforschungsinstitut BFI) and an academic partner (Chair of Mining Engineering and Mineral Economics Conveying Technology and Design Methods) works on

the reduction of diffuse dust emissions at bulk material handling in ironmaking plants.

This project focusses on prevention of dust by design optimisations. The investigations base on full scale simulations and laboratory model tests. Afterwards, the improvements are tested in industrial scale. These analyses are performed for a representative bunker and a transfer point at the steel plant of voestalpine Stahl Donawitz GmbH in Leoben, Austria.

The project "Prevention of secondary dust emissions in ironmaking plants using dust suppressants" and the research leading to these results has received funding from the European Union's Research Fund for Coal and Steel (RFCS) research programme under grant agreement number:

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