

Prevention of Fires and Dust Explosions when handling Biomass

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Abstract

Last decade there has been a trend for coal power plants to blend biomass into the coal, to reduce the carbon dioxide emission. One side-effect of this is that the risk for fires and dust explosions will increase dramatically.

This paper will explain why the risk for fires and explosions will increase when using biomass. It will give an introduction to the fundamentals of dust explosions and the ignition criteria's as well as giving suggestions on how fires and explosions can be avoided in the material handling system and in the storage silos.

The presentation mixes theoretical training with examples and videos from live cases.

KEYWORD: Fire and dust explosion, Silo protection, Conveyor protection