

Fire and explosion protection in biomass power plants

Rembe, Brilon, Germany, points out that, as more and more power generation plants are being modified to handle biomass dust, it is often incorrectly assumed that earlier safety measures taken to safeguard against risk of coal dust explosions will remain effective.

Although biomass and coal dusts do share some similarities their explosibility characteristics, such as minimum ignition energies and temperatures, are significantly different. Additionally, biomass can be susceptible to self-ignition risks.

Research on this subject has recently been undertaken by Johannes Lottermann at the company's headquarters working in association with Michael MacClancy and Peter Bradshaw, both based at its UK office. They conclude that for a reliable safety concept to be achieved, every aspect of the process needs to be considered. Simply installing explosion and fire protection systems is not enough, and areas such as sound process design, workforce training and good house-keeping are all important factors in an effective protection programme. www.rembe.de



Typical biomass handling installation at a power plant where covered storage and enclosed conveyors pose a potential dust explosion hazard