Grain Dust Hazards Stats & Facts

FACTS

Accidents And Incidents That Can Result from Grain Dust Hazards Include:

1. When grain dust becomes suspended in the air and reaches a critical concentration, it can ignite and cause an explosion.
2. Grain dust is highly flammable, and if it accumulates near ignition sources such as hot machinery or electrical equipment, it can lead to fires.
3. Workers who are repeatedly exposed to grain dust without proper respiratory protection may develop respiratory problems over time.
4. Grain dust that accumulates on floors and surfaces, increases the risk of slips, trips, and falls, that lead to injuries.
5. Grain dust in the air can reduce visibility, increasing the risk of accidents when operating vehicles, machinery, or handling equipment.
6. In grain handling machinery, the presence of grain dust can exacerbate the risk of entanglement accidents.
7. Grain dust can infiltrate machinery and equipment, leading to malfunction or reduced efficiency.
8. If grain dust contaminates food products or animal feed, it can lead to health issues for consumers or animals consuming the contaminated grains.

STATS

Injuries and Fatalities Due to Grain Dust Explosions:

- Over the last ten years, there have been 101 injuries and 15

fatalities due to grain dust explosions in the agricultural industry. Of these incidents, 55 occurred in grain elevators, highlighting the substantial risk associated with grain handling facilities.

- An increase in grain dust explosions was reported nationally at grain handling, feed manufacturing, and biofuel facilities in 2018; however, resulting injuries and fatalities were down from the previous year. There were 12 grain dust explosions in 2018, resulting in one fatality and four injuries, compared to five deaths and 12 injuries in 2017.
- The number of grain dust explosions and the resulting injuries and fatalities decreased in 2021, according to an annual report issued by Purdue University’s Department of Agricultural and Biological Engineering