



Combustible Dust

Toolbox Talks are intended to facilitate health and safety discussions. Find more Toolbox Talks on the [Occupational Safety web page](#).

General Information

A combustible dust explosion can be catastrophic and can cause deaths, injuries, and destruction of entire buildings. The ingredients for a combustible dust explosion include fine organic dust (fuel), oxygen, and an ignition source. All ingredients can be found in grain elevators, feed mills, coal-fired power plants, and woodworking facilities. It only takes a 1/32-inch layer of dust accumulation to become a concern. By controlling dust emissions, you can provide a cleaner and safer work environment.



Preventive Measures

- Ensure seals are in place to reduce dust leakage from equipment.
- Reduce or eliminate ignition sources such as short circuits, static electricity, overheated bearings, friction, or welding devices.
- Perform routine maintenance/lubrication for bearings based on the manufacturer's recommendations.
- Inspect for dust regularly and develop a plan to control and clean dust.
- Use intrinsically safe equipment in areas with a potential environment for combustible dust.
- Install cleanout doors in conveyance systems for easy removal of grain and dust.

Actions

- No smoking or vaping.
- Limit the use of brooms or compressed air that cause dust to circulate.
 - Use of intrinsically safe vacuums or dust collection systems is preferred.
- Capture dust before it reaches a work area.
- Contain dust within equipment, systems, or rooms designed to handle the material.
- Clean workspaces, overhead surfaces, concealed areas, and conveyance systems regularly.

Discussion Date:

Supervisor:

Participants: