Combustible Dust

Does your company or firm process any of these products or materials in powdered form?

If your company or firm processes any of these products or materials, there is potential for a “Combustible Dust” explosion.

Agricultural Products
- Egg white
- Milk, powdered
- Milk, nonfat, dry
- Soy flour
- Starch, corn
- Starch, rice
- Starch, wheat
- Sugar
- Sugar, milk
- Sugar, beet
- Tapioca
- Whey
- Wood flour

Agricultural Dusts
- Alfalfa
- Apple
- Beet root
- Carragenan
- Carrot
- Cocoa bean dust
- Cocoa powder
- Coconut shell dust
- Coffee dust
- Corn meal
- Cornstarch
- Cotton
- Cottonseed
- Garlic powder
- Gluten
- Grass dust
- Green coffee
- Hops (malted)
- Lemon peel dust
- Lemon pulp
- Linseed
- Locust bean gum
- Malt
- Oat flour
- Oat grain dust
- Olive pellets
- Onion powder
- Parsley (dehydrated)
- Peach
- Peanut meal and skins
- Peat
- Potato
- Potato flour
- Potato starch
- Raw yucca seed dust
- Rice dust
- Rice flour
- Rice starch
- Rye flour
- Semolina
- Soybean dust
- Spice dust
- Spice powder
- Sugar (10x)
- Sunflower
- Sunflower seed dust
- Tea
- Tobacco blend
- Tomato
- Walnut dust
- Wheat flour
- Wheat grain dust
- Wheat starch
- Xanthan gum

Chemical Dusts
- Adipic acid
- Anthraquinone
- Ascorbic acid
- Calcium acetate
- Calcium stearate
- Carboxy-methylcellulose
- Dextrin
- Lactose
- Lead stearate
- Methy-cellulose
- Paraformaldehyde
- Sodium ascorbate
- Sodium stearate
- Sulfur

Metal Dusts
- Aluminum
- Bronze
- Iron carbonyl
- Magnesium
- Zinc

Plastic Dusts
- (poly) Acrylamide
- (poly) Acrylonitrile
- (poly) Ethylene
- (low-pressure process)

Carbonaceous Dusts
- Charcoal, activated
- Charcoal, wood
- Coal, bituminous
- Coke, petroleum
- Lampblack
- Lignite
- Peat, 22%H2O
- Soot, pine
- Cellulose
- Cellulose pulp
- Cork
- Corn

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- Cork
- Corn

Dust Control Measures
The dust-containing systems (ducts and dust collectors) are designed in a manner (i.e., no leaking) that fugitive dusts are not allowed to accumulate in the work area.

The facility has a housekeeping program with regular cleaning frequencies established for floors and horizontal surfaces, such as ducts, pipes, hoods, ledges, and beams, to minimize dust accumulations within operating areas of the facility.

The working surfaces are designed in a manner to minimize dust accumulation and facilitate cleaning.

Ignition Control Measures
Electrically-powered cleaning devices such as vacuum cleaners, and electrical equipment are approved for the hazard classification for Class II locations.

The facility has an ignition control program, such as grounding and bonding and other methods, for dissipating any electrostatic charge that could be generated while transporting the dust through the ductwork.

The facility has a Hot Work permit program.

Areas where smoking is prohibited are posted with “No Smoking” signs.

Dust systems, dust collectors, and dust-producing machinery are bonded and grounded to minimize accumulation of static electrical charge.

The facility selects and uses industrial trucks that are approved for the combustible dust locations.

Prevention Measures
The facility has separator devices to remove foreign materials capable of igniting combustible dusts.

MSDSs for the chemicals which could become combustible dust under normal operations are available to employees.

Employees are trained on the explosion hazards of combustible dusts.

Protection Measures
The facility has an emergency action plan.

Dust collectors are not located inside of buildings. (Some exceptions)

Rooms, buildings, or other enclosures (dust collectors) have explosion relief venting distributed over the exterior wall of buildings and enclosures.

Explosion venting is directed to a safe location away from employees.

The facility has isolation devices to prevent deflagration propagation between pieces of equipment connected by ductwork.

The dust collector systems have spark detection and explosion/deflagration suppression systems.

Emergency exit routes are maintained properly.