

# COMBUSTIBLE DUST AND FLASH FIRES

Most of us have had education and training for Combustible Dust Explosions and the hazards associated with excessive accumulations of combustible wood dust in our workplaces. Combustible Dust explosions can be catastrophic and cause significant injuries.

In addition to dust explosions, Flash Fires have the potential to cause significant injuries to workers. Many of us don't fully realize the hazards associated with workplace Flash Fires.

- WHAT ARE FLASH FIRES?

- HOW DO I KNOW WHEN A FLASH FIRE HAZARD EXISTS?

- WHAT CAN I DO TO STOP FLASH FIRES FROM OCCURRING?



**BC Forest Safety**

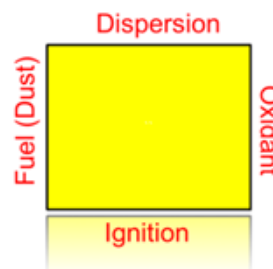
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# COMBUSTIBLE DUST AND FLASH FIRES



## WHAT ARE FLASH FIRES?

- A flash fire is a sudden, intense fire caused by ignition of a mixture of air and a disperse flammable substance such as a combustible solid, combustible liquid, or flammable gas.
- The Flash Fire Square explains what conditions are needed:
- The following are needed for a Flash Fire to occur:
  1. Fuel
  2. Oxidant (Oxygen)
  3. Dispersion
  4. Ignition



## HOW DO I KNOW WHEN A FLASH FIRE HAZARD EXISTS?

- If you see accumulations of wood dust especially on elevated surfaces in the presence of potential ignition sources you have a potential for a Flash Fire.
- Sometimes a Flash Fire can occur with less than 1/8" of combustible dust over 5% of the area if it is concentrated in a pile and then dispersed into the air.
- If the pile of wood dust can be dispersed with compressed air or other means in the right concentrations with an exposed ignition source you can have a flash fire.

## WHAT CAN I DO TO STOP A FLASH FIRE FROM OCCURRING?

- If you see piles of combustible wood dust on elevated surfaces minimize the dust cloud when cleaning the dust.
- Ensure that there are no potential ignition sources present during clean-up (hot lights, hot motors, sparks, smoulders or Hot Work activities).
- Report piles of combustible wood dust if they are located overtop of a potential ignition sources and get help cleaning these problematic areas.
- Don't use an air hose to blow it down to the floor level for sweeping if you haven't ensured there are no ignition sources in the area.
- If you see a smouldering dust pile do not disperse this dust with compressed air, get help before you start to clean it up.



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