

Precautions for Firefighters to Prevent Dust Explosions

Firefighting tactics may cause combustible dust explosions!

Typical firefighting tactics can unintentionally create the conditions for an explosion by creating dust clouds, introducing air, using equipment that can be an ignition source, or applying incompatible extinguishing agents. The safeguards on both sides of this card can help keep you safe when operating around materials such as sawdust, flour, sugar, grain, coal, fertilizer and aluminum dust.

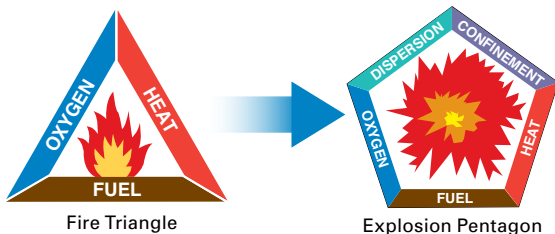


Photo: Todd Dudek / Gannett Newspapers

Firefighters in the path of a sawdust flash fire.

How do dust explosions occur?

When fuel (combustible dust) is dispersed and confined in an enclosed space or building, ignition can result in an explosion.



For more information:



**Occupational
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Be prepared for an emergency incident

- Conduct thorough pre-incident planning.
- Work closely with facility safety personnel.
- Have emergency contact information for each facility.
- Identify and learn about explosion protection devices and systems.
- Train regularly with facility personnel.
- Check fire hose thread compatibility.
- Review OSHA's booklet *Firefighting Precautions at Facilities with Combustible Dust* (OSHA 3644).
- Draft an incident action plan.

Take precautions to prevent or mitigate dust explosions

- **Fire attack:** Choose defensive mode when warranted.
- **Extinguishing agent:** Select agent compatible with burning or nearby material.
- **Hose streams:** Use low-pressure medium fog streams to avoid dust clouds.
- **Fire extinguishers:** Apply agent gently to avoid dust clouds.
- **Access and ventilation:** Consider proper timing before introducing oxygen.
- **Power shutdown:** Coordinate equipment shutdown with facility personnel.
- **Tools and equipment:** Do not introduce ignition sources.

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