



MASSACHUSETTS INSTITUTE OF FIRE DEPARTMENT INSTRUCTORS TRAINING BULLETIN

TB no. 5

October 19, 2026

SUBJECT: Lumber and Sawdust Related Fires

On May 15, 2026, a fire at Robbins Lumber in Searsmont, Maine killed one firefighter and injured 11 more. Reports state the fire started in an area where wood shavings are packed in plastic bags. From there, the flames spread to a nearby silo used for dust storage, which then exploded.

Commercial woodworking, cabinet, millwork, school shop, sawmill, and similar facilities often use dust collection systems to remove sawdust and fine wood particles. These systems improve air quality but can concentrate combustible dust inside ductwork, collectors, filters, bins, hoppers, and storage containers. Fine wood dust can burn rapidly. When suspended in air and ignited inside a confined space, it can produce a flash fire, deflagration, or explosion. A visible dust layer on rafters, lights, pipes, machinery, or ductwork can become airborne from machinery operation, providing a potential fuel source.

As dust moves at high speed through ducts, elbows, flexible hoses, filters, and collectors, static charge can build, and static electricity becomes a key ignition concern. If it is not safely dissipated, it may discharge as a spark inside a dust-filled duct or collector. Proper systems use bonding and grounding. Bonding connects metal parts together so they remain at the same electrical potential. Grounding connects the bonded system to earth ground so charge can drain away.

Tactical and safety considerations for dust collection systems include:

- Do not treat a collector fire as a simple dumpster or machine fire until the system is evaluated.
- Fire may travel through ductwork back into the building or remain hidden in filters, bins, hoppers, and concealed spaces.
- Shut down machinery and dust collection equipment when safe. Control utilities and consider lockout/tagout.
- Avoid disturbing accumulated dust unnecessarily. Use caution with positive pressure ventilation where dust accumulation is present.
- Check ductwork, collectors, bins, ceiling spaces, and machinery with a TIC.
- Avoid standing in front of collector doors, cleanout ports, duct openings, or explosion relief panels.
- Open collectors, bins, and ductwork cautiously during fire, pressure, and dust conditions.

Example of a new commercial dust collection system



Ductwork and connections for the CHS Woodworking Shop dust collection system



Dust collection system ductwork



Filter bags and collection bags

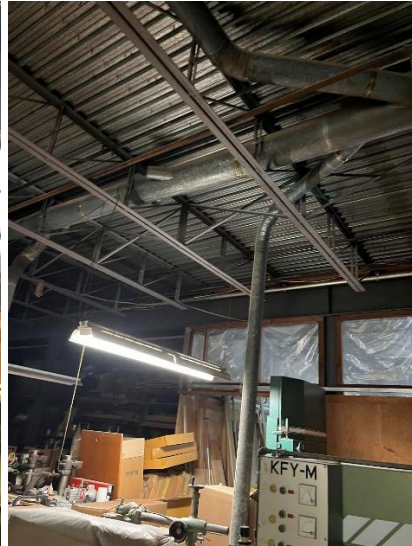


Dust collection system controller

Example of a new commercial dust collection system



Dust collection funnel w/ collection point



Ductwork piping to transport sawdust



Manual start and stop control



Dust collection filter bags (10 total) suspended from ductwork