

# KENTFIELD FIRE PROTECTION DISTRICT



Developed by

Jim Galli, Battalion Chief

Approved by

Paul Smith, Fire Chief

## Fire Protection Standard 518

### Dust Collection Systems

Date: 1-1-04

Revision: \_\_\_\_\_

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This standard has been developed pursuant to Article 30 of the Uniform Fire Code as adopted by ordinance by the Kentfield Fire Protection District. It is intended that this Standard be used as a guide to establish a reasonable degree of fire and life safety in buildings equipped with dust producing equipment and machinery.

#### I. Scope

- A. This standard shall apply to all cabinet shops, woodworking shops and similar occupancies involving the handling, storage or processing of wood particles, wood fibers and wood dusts.
- B. The purpose of this standard is to establish reasonable minimum requirements for safeguarding life and property against fire and explosion in areas where finely divided wood dust is produced or handled.

#### II. Occupancy Designation

- A. Occupancy group designations significantly impact the severity of fire and life safety codes applied to specific buildings and are hinged on the extent of production, operation and use of the building.
- B. The following occupancy group definitions have therefore been modified slightly, in order to provide reasonable fire and life safety to those buildings which may not be adequately classified pursuant to Uniform Building Code Table 5A,

##### Occupancy Group/Division Definition

- B-2 Woodworking operations and cabinet shops which are owner operated or where not more than one employee is operating one piece of equipment/machinery/appliance at any one time.
- H-3 Locations generating or processing large quantities of loose combustible fibers or dust. Cabinet and production shops not classified as a B-2, box factories, buffing room of tire recappers, etc.

#### III. General

- A. Dust or refuse collection and removal systems are selected based on the amount of machinery being used or capable of being used by employees at any one time, the amount of dust or product discharged into the atmosphere by each piece of

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equipment or machinery and the quantity of dust particles conveyed and accumulated in the atmosphere, walls and floors within the business.

- B. Where flammable and explosive dusts are present, explosion venting shall be installed where required and comply to Uniform Fire Code and NFPA Standard No. 68.

#### IV. Classification of Systems

- A. Dust collection equipment and systems shall comply with the following types:
1. A shop/commercial grade vacuum
  2. A portable dust collection system utilizing flexible ductwork and a portable collection and filter system. Each appliance or piece of equipment shall be connected directly to each appliance or piece of equipment in operation. The portable dust collection system and related electrical equipment shall be listed for such use by a nationally recognized testing laboratory.
  3. A stationary cyclone dust and refuse removal system designed, maintained and installed in accordance with NFPA Standard No. 19, and listed by a nationally recognized testing laboratory.

#### V. Where Required

- A. Combustible dusts shall not accumulate on walls, floors, fire protections systems or in electrical junction or receptacle boxes.
- B. Dust removal equipment or systems outlined in III.B. above shall be installed where present means of housekeeping are inadequate.
- C. The minimum acceptable type of dust collection and removal equipment shall be by means of a commercial/shop grade vacuum.
- D. All portable, handheld and stationary appliances and equipment which are manufactured with a dust bag or dust bag attachment shall be installed and maintained in accordance with the manufacturers instructions.
- E. Other portable or stationary dust collection or removal systems shall be installed as required to maintain a dust free atmosphere and housekeeping as outlined in IV. A. of this standard.

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Note: Reasonable judgement shall be exercised on the part of the inspecting company when enforcing the provisions of this standard.

#### Reference:

Fire Prevention Standards: NFPA Std. No. 68 - Explosion Venting  
NFPA Std. No. 91 Blower and Exhaust Systems