

<p>July 1, 2010</p>	<p><b>SANTA ROSA FIRE DEPARTMENT</b>  <b>FIRE PREVENTION BUREAU STANDARD</b></p>
	<p><b>COMBUSTIBLE DUST PRODUCING OPERATIONS</b></p>

**PURPOSE**

The intent of this guideline is to provide the minimum standards necessary for the prevention of dust explosions, in accordance with 2007 California Fire Code Chapters 13 and 19. Failure to comply with these standards shall be due cause for denial or revocation of required permits and filing for civil or criminal prosecution. The Fire Chief may waive any of these requirements upon review and approval of alternate methods and materials that meet the intent of these standards.

**CODE REFERENCES**

2007 California Building Code (CBC)  
2007 California Fire Code (CFC)  
2007 California Mechanical Code

**PERMIT(S) REQUIRED**

An annual permit is required for facilities that produce combustible dust operations. An operational permit is required to operate a grain elevator, flour starch mill, feed mill, or a plant pulverizing aluminum, coal, cocoa, magnesium, spices or sugar, or other operations producing combustible dusts as defined.

**Categories and fee amounts are found at:**  
<http://ci.santa-rosa.ca.us/doclib/Documents/IB%20018.pdf>

**ATTACHMENTS**

- 1) Plan Review Checklist
- 2) Inspection Checklist

**GENERAL REQUIREMENTS**

1. Combustible dust is defined as finely divided solid material which is 420 microns or less in diameter and which, when dispersed in air in the proper proportions, could be ignited by a flame, spark or other source of ignition.
2. A permit is required to operate a grain elevator, flour starch mill, feed mill, or plant pulverizing aluminum, coal, cocoa, magnesium, spices or sugar, or other operations producing combustible dust.
3. Equipment or machinery located inside buildings which generates or emits combustible dust shall be provided with an approved dust-collection system and exhaust system installed in conformance with CFC Chapter 13 and the California Mechanical Code, per CFC1903.2.
4. Where a dust explosion hazard exists in equipment rooms, buildings or other enclosures, such areas shall be provided with explosion (deflagration) venting or an approved explosion suppression system complying with CFC Section 911 and CFC Section 1304.

## Standard

### Combustible Dust-Production Operations

5. Sawmills, planing mills, and other woodworking plants shall be equipped with a waste removal system that will collect and remove sawdust and shavings. Such systems shall be installed in accordance with CFC Chapter 13 and the California Mechanical Code.
  - 5.1 Housekeeping. Provisions shall be made for a systematic and thorough cleaning of the entire plant at sufficient intervals to prevent the accumulation of combustible dust and spilled combustible or flammable liquids.
6. Control of Ignition Sources. Smoking, carrying matches, cutting and welding equipment, and use of heating or other devices employing an open flame, and use of spark producing equipment shall be controlled in areas containing dust-producing or dust-agitating operations, per CFC 1903.5.
7. Static electricity shall be prevented from accumulating on machines and equipment subject to static electricity buildup by permanent grounding and bonding wires or other approved means.
8. Electrical wiring and equipment shall comply with the California Electrical Code.
9. Fire apparatus access roads shall be provided for buildings and facilities in accordance with CFC Section 503.
10. Accumulation of dust shall be kept at a minimum inside buildings. Accumulated dust shall be collected with a vacuum or other means that will not place combustible dust into suspension in air. Forced-air or similar devices shall not be used to remove dust from surfaces, per CFC Section 1303.2.
11. A plan for the exterior storage of raw and finished material shall be submitted to and approved by the Fire Prevention Bureau, per CFC Chapter 19. The owner or operator shall develop a plan for monitoring, controlling and extinguishing spot fires, and shall submit the plan to the Fire Prevention Bureau for review and approval.
12. The use of nationally recognized standards to address the specific hazard may be required by the Fire Prevention Bureau.