



FIRE PREVENTION GUIDELINE

Title: Spray Booths		
Number: FPG-20	Effective Date: 01/01/2008	Revised Date: 03/01/2009
Code References: California Fire Code (CFC), California Code of Regulations (CCR) Title 19, Merced Municipal Code (MMC)		
Note: <i>This guideline is a summary of Fire Department clarifications and interpretations of City and State Codes and nationally recognized standards in accordance with the currently adopted edition of the Fire Code. Information contained herein applies to typical circumstances and may not address all situations.</i>		

Scope

This Guideline has been developed to assist the public and business community with the inspection and maintenance requirements for spray booths.

Codes and Guidelines

This guideline shall apply to spray booths used for the application of flammable or combustible finishes in accordance with the California Fire Code, California Code of Regulations, Title 19 and the Merced Municipal Code.

Permits Required

A Fire Code permit for spraying or dipping operations is required. The City of Merced Inspection Services Division requires a construction permit for the installation/construction of a spray booth.

Definitions

Flammable Finishes: Material coatings in which the material to be applied is a flammable or combustible liquid, combustible powder or flammable or combustible gel coating.

Spray Booth: A mechanically ventilated appliance of varying dimensions and construction provided to enclose or accommodate a spraying operation and to confine and limit the escape of spray vapor and residue and to exhaust it safely.

Specific Requirements

1. **Fire Extinguishing Systems**

Spray booths and spraying rooms shall be protected by an approved automatic fire suppression system. The system shall be extended to protect exhaust plenums, exhaust ducts and both sides of dry filters when filters are used. A spray booth located inside a building that is otherwise provided with a fire sprinkler system shall be protected by the fire sprinkler system through extension into the spray booth, duct and plenum or an approved special suppression system if approved by the Fire Marshal.



FIRE PREVENTION GUIDELINE

- a. Fire Sprinkler System Requirements: Systems shall be inspected, tested and maintained in accordance with Merced City Fire Department, Fire Prevention Guideline FPG-14 and the following requirements;
 - i. Automatic sprinkler heads shall be protected from the accumulation of residue from spraying operations in an approved manner. Bags used as a protective covering shall be 0.003-inch-thick polyethylene or cellophane or shall be thin paper.
 - ii. Automatic sprinkler heads contaminated with overspray particles shall be replaced with new heads.
- b. Special System Requirements: Dry chemical, carbon dioxide, gaseous agent or other special systems protecting spray booths shall have a current State Fire Marshal service tag attached and is required to be inspected and tested at least every six months or after activation in accordance with Merced City Fire Department, Fire Prevention Guideline FPG-14

2. Fire Extinguishers

Portable fire extinguishers shall be provided for spraying areas in accordance with the requirements of an "extra hazard" occupancy.

- a. At least one 4-A: 40BC rated fire extinguisher with a current State Fire Marshal service tag attached shall be properly located within 30 feet of travel distance from the booth.

3. Smoking

Smoking shall be prohibited in all spray booths, flammable vapor areas and in flammable liquid storage rooms. "NO SMOKING" signs with approved lettering and size shall be posted in these areas.

4. Open Flame and Sparks

Open flames and spark-producing devices shall not be used in spray booths, flammable vapor areas or within 20 feet of such areas unless properly separated.

- a. Welding, cutting or similar operations shall not be conducted in or adjacent to flammable vapor areas. Conspicuous signs with the following warning shall be posted in these areas:

**NO WELDING
THE USE OF WELDING OR CUTTING EQUIPMENT
IN OR NEAR THIS AREA
IS DANGEROUS BECAUSE OF
FIRE AND EXPLOSION HAZARDS, WELDING
AND CUTTING SHALL BE DONE ONLY
UNDER THE SUPERVISION OF THE
PERSON IN CHARGE**

5. Operations and Maintenance



FIRE PREVENTION GUIDELINE

Spray booths, exhaust fan blades and exhaust ducts shall be kept free from the accumulation or deposits of combustible residues.

- a. Tools used for cleaning purposes shall be constructed of non-sparking materials.
- b. Residues removed during cleaning and debris contaminated with residue shall be immediately removed from the premises and be properly disposed.
- c. Metal waste cans with self-closing lids shall be provided for the disposal of rags or waste impregnated with finishing material. The contents of the waste cans shall be properly disposed of at least once daily and at the end of each shift.
- d. Spray booths shall be readily available for cleaning and a clear space of not less than 3 feet around the exterior of the booth shall be kept free of storage or combustible materials.
- e. Portable electric lamps shall not be used in flammable vapor areas during spraying operations. Portable electric lamps used during cleaning or repairing operations shall be of a type approved for hazardous locations.

6. **Electrical**

Approved (explosion proof type) electrical wiring is required inside any booth and within 20 feet of any booth opening.

- a. Wiring shall be in approved conduit and all receptacles, fixtures, and switches shall not be damaged and must be properly sealed.

7. **Exit Doors**

Exit doors shall be readily openable from the inside, unobstructed and swing in the direction of egress.