

Permit Requirements Spray Booth

Kern County Fire Department



Office of the Fire Marshal ~ Fire Prevention
2820 M St. ~ Bakersfield, CA 93301
Telephone (661) 391-3310 ~ Fax (661) 636-0466/67
Website: kerncountyfire.org
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Please include completed Application for Permit (KCFD 200) with submittal

Fee Amount: \$580.00

Fee Code: 1.7

The intent of this document is to aid in the construction permitting process including Change of Use/Occupancy for a spray booth within commercial buildings or tenant spaces regarding what should be submitted for the Fire Marshal's Office review. Because every building differs, this guideline is not intended to identify each code requirement applicable, therefore the applicant must follow **California Fire Code Chapter 24**. Other Fire Department operational permits may be required.

1. Permits for Spray Booths shall be applied for at 2820 M St., Bakersfield, CA 93301. Additional permits are required by the Building Department and Air Pollution Control District.
2. Fee shall be submitted at time of application submittal. Make check payable to Kern County Fire Department. **Visa and MasterCard accepted.**

This permit shall apply to locations or areas where any of the following activities are conducted:

- a) The application of flammable finishes to articles or materials by means of spray apparatus.
- b) The application of flammable finishes by dipping or immersing articles or materials into the contents of tanks, vats or containers of flammable or combustible liquids for coating, finishing, treatment or similar processes.
- c) The application of flammable finishes by applying combustible powders to articles or materials utilizing powder spray guns, electrostatic powder spray guns, fluidized beds or electrostatic fluidized beds.
- d) Floor surfacing or finishing operations using Class 1 or 2 liquids in areas exceeding 350 square feet.
- e) The application of flammable finishes consisting of dual-component coatings or Class 1 or 2 liquids where applied by brush or roller in quantities exceeding 1 gallon.

NONAPPLICABILITY:

This permit shall not apply to spray finishing utilizing flammable or combustible liquids that do not sustain combustion, including:

- a) Liquids that do not have a fire point when tested in accordance with ASTM D92.
- b) Liquids with a flashpoint greater than 95 degrees F in a water solution or dispersion with a water and inert (noncombustible) solids content of more than 80 percent by weight.

The intent of this guideline is to provide the information necessary to ensure that the design and installation of spray booths will comply with the applicable provisions of the 2019 California Fire Code (CFC), the 2019 California Building Code (CBC) and locally adopted ordinances enforced by the Kern County Fire Department.

This guideline is applicable to any spray booth in which spraying operations utilizing flammable or combustible liquids and combustible powders are conducted. (CFC Chapter 24)

Definition

A Spray Booth is a power-ventilated structure provided to enclose or accommodate a spraying operation, to confine and limit the escape of spray, vapor, residue, and exhausting it safely. Spray booths are manufactured or constructed in a variety of forms to control the unique hazards associated with flammable sprays and vapors.

Requirements

1. Conspicuous signs with warnings shall be posted in the vicinity of spraying areas, dipping operations, and paint storage rooms:
2. **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".
3. Electrical wiring & equipment shall be in accordance with CFC Section 2403.2.1 and the Electrical Code.
4. The storage, use, and handling of flammable and combustible liquids shall be in accordance with CFC Chapter 57.
5. Approved metal waste cans equipped with self-closing lids shall be provided wherever rags or waste are impregnated with finishing material. (CFC Section 2404)
6. Spray booths shall be substantially constructed of steel not less than 0.044 inch (18 gauge) in thickness or other approved noncombustible material. (CFC Section 2404.3)
7. The aggregate area of spray booths in a building shall not exceed the lesser of 10 percent of the area of any floor of a building or the basic area allowed for a Group H, Division 2 occupancy without area increases, as set forth in California Building Code (CBC). The area of any individual spray booth in a building shall not exceed the lesser of the aggregate size limit or 1500 square feet. An allowable exception to these limitations is a single, individual booth not exceeding 500 sq. ft. (CFC Section 2404)
8. Floors shall be of noncombustible material or shall be covered with a noncombustible, non-sparking material of such character to facilitate safe cleaning and removal of residue. (CFC Section 2404)
9. If installed, baffle plates shall be of a noncombustible material readily removable or accessible to facilitate cleaning and designed to provide an even flow of air through the booth and to prevent the deposit of overspray before it enters the exhaust duct. Baffle plates shall not be installed in the exhaust ducts.
10. An automatic fire protection system shall be installed in flammable vapor areas. (CFC Section 2404.4)
11. An audible and visual device will be installed on spray booth so as to notify occupants of an activation of extinguishing system.
12. A manual actuation device shall be installed so as not to rely on the automatic function of the fixed fire extinguishing system.
13. Spray booths shall be separated from other operations by not less than 3 feet, by a wall or partition, or by a greater distance as required by the Chief when specific conditions are defined which warrant a greater distance. (CFC Section 2404)
14. All portions of spray booths shall be readily available for cleaning and a clear space of not less than 3 feet shall be kept free of storage or combustible materials. (CFC Section 2404)
15. When spray booths are illuminated, fixed lighting units which transmit light into the spray booth through heat-treated or hammered wire glass shall be used. (CFC Section 2404.6.2)
16. Exit doors from paint spray booths shall not be less than 2 feet 6 inches wide by 6 feet 8 inches tall. (CFC Section 2404.3.3.4)
17. Discarded filter pads shall be immediately placed in a noncombustible container with a tight fitting lid and disposed of in accordance with hazardous waste regulations.
18. Visible gauges, audible alarms, or pressure-activated devices shall be installed to indicate or ensure that the required air velocity is maintained. (CFC Section 2404.7.8.3)
19. Electrical wiring and equipment shall comply with CFC Section 2403.2.1 and *the California Electrical Code*. Flammable vapor areas. Electrical wiring and equipment in flammable vapor areas shall be of an

explosion proof type approved for use in such hazardous locations. Such areas shall be considered to be Class 1, Division 1 or Class n Division hazardous locations in accordance with *the California Electrical Code*.

20. Each spray booth shall have an independent exhaust system discharging to the building exterior.
21. Electric motors driving exhaust fans shall not be placed inside booths or ducts. Belts shall not enter ducts or booths unless belts and pulleys within a duct or booth are tightly enclosed.
22. Flammable and combustible liquids shall be stored and handled in accordance with CFC Chapter 57.

Fire Protection Equipment

Spray booths and spraying rooms shall be protected by approved automatic fire extinguishing systems complying with Chapter 9 of CFC. Such systems 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. (CFC Section 2404.4)

Portable fire extinguishers shall be provided for spraying areas in accordance with the requirements for an extra (high) hazard occupancy. See CFC 2404.4.1. (e.g., 4A:40BC within 30 feet of the booth)

Should the sprinkler system be equipped to monitor water flow to a central monitoring station, the sprinkler system required for the spray booth shall also be monitored for water flow.

Drying Apparatus

Spray booths and spraying rooms shall not be alternately used for the purpose of drying arrangements which would cause a material to increase the surface temperature of the spray booth or room unless used for automobile refinishing in accordance with CFC Section 2404.6.1.

The spraying procedure shall use low-volume spray application. (CFC Section 2404.6.1.1)

The spraying apparatus, drying equipment, and ventilating system for the spray booth or spraying room shall be equipped with suitable interlocks. (CFC Section 2404.6.1.2.1)

Interlocks

Prevent the operation of spraying apparatus while drying operations are in progress,

Purge spray vapors from the spray booth or spraying room for a period of not less than 3 minutes before drying apparatus can be operated,

Have the ventilating system maintain a safe atmosphere within the spray booth or spraying room during the drying process and automatically shut off drying apparatus in the event of a failure of the ventilating system, and Automatically shut off the drying apparatus if the air temperature within the booth exceeds 160 degrees F, when other than portable infrared drying apparatus is used.

Review and Inspection Process

A minimum of three (3) sets of plans and the appropriate equipment data sheets for the installation of the spray booths shall be approved by Kern County Fire Department prior to installation. These plans shall be drawn with all dimensions identified or drawn to scale and must demonstrate compliance with the CFC, CBC, and this guideline.

Plans for the extinguishing system required in the booth shall be submitted by the licensed fire protection contractor (C-16) responsible for the work. The booth may not be permitted until both plan reviews have been reviewed and approved. Following the plan review process, contact the Kern County Fire Department to request an inspection verifying compliance with the approved plans, codes and standards and witness testing of any chemical based fire extinguishing system. All required CFC permits will be issued upon successful completion of required inspections.

Additional Requirements: _____

Mailing Address:

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Attn: Fire Prevention