



Clovis Fire Department

Standard # 3

SPRAY BOOTHS, ROOMS & DIP TANKS

Rules & Regulations:

1. A permit from the Fire Department must be obtained for spraying or dipping operations utilizing flammable or combustible liquids.
2. Provide a portable fire extinguisher, with a minimum rating of 4A40BC for the protection of an area extra (high) hazard occupancy or as directed by the Fire Marshal.
3. Smoking shall be prohibited in all spray finishing and dip tank areas. **"NO SMOKING"** signs with approved size lettering shall be posted in these areas.
4. There shall be no open flame or spark producing equipment in any spraying or dipping area, or within twenty feet (20') thereof, unless separated by a partition. Space heating appliances, steam pipes, or hot surfaces shall not be located in a spraying or dipping area where combustible residues may readily accumulate (Class 1, Division 1 Hazardous Location, Electrical Code). No electrical equipment except wiring of explosion-proof type approved for this use in rigid conduit or boxes or fittings containing no taps, splices or terminal connections. Electrical wiring and equipment outside of but within twenty feet (20') of spraying area and not separated by partitions shall not produce sparks (Class 1, Division 2 Hazardous location). Electric lamps in this area shall be totally enclosed to prevent the falling of hot particles and protected from physical damage by guard or location. Portable electric lamps shall not be used during spraying, but if used for cleaning up or repairing, must be type approved for hazardous locations.
5. Conspicuous signs shall be posted in all spraying and dipping areas and paint storage rooms with the following warning: **"NO WELDING. The use of welding or cutting equipment in or near this area is dangerous because of fire and explosion. Welding and cutting shall be done only under the supervision of the foreman in charge."**
6. All spraying areas should be kept free from accumulations of deposits of combustible residues as practical with daily cleaning if necessary. Spray booths may not be used alternately for different types of coating materials unless properly cleaned.
7. Approved metal waste cans shall be provided for rags used in the painting processes and the contents shall be properly disposed of at least once a day.
8. Spray finishing and dip tank operations shall not be conducted in any other occupancy except in a room designed for this purpose, protected with an approved system of automatic sprinklers and separated vertically and horizontally from other areas by construction complying with the requirements of the 2007 Building Code (Chapter 34).

9. Spray booths shall be substantially constructed of steel not less than No.18 U.S. gauge in thickness or other approved noncombustible materials. The area of a paint spray booth shall not exceed one thousand five hundred (1,500) square feet nor 10% of the basic area permitted for the major use of the building as set forth in the *2007 CFC section 1504.3.2.6*.
10. The interior surfaces of spray booths shall be smooth and continuous without edges and otherwise designed to prevent pocketing of residue to permit the free passage of exhaust air from all parts of the interior to facilitate washing and cleaning without injury. The floor shall be of non-combustible material or shall be covered with a noncombustible, nonsparking material of such character to facilitate the safe cleaning and removal of residue.
11. All spraying and dipping areas must have mechanical ventilation in operation at all times during spraying and dipping operations and for a sufficient time after to allow all vapors and residue to be exhausted. Any failure in the ventilating system shall automatically stop any spraying or dipping systems.
12. Each spray booth must have an independent exhaust duct system discharging to the building exterior. Air exhausted must not be recirculated. The discharge point for exhaust ducts must not be less than six feet (6') from the adjoining combustible construction nor more than twenty-five feet (25') from adjoining exterior wall openings.
13. 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. Such plates shall not be installed in the exhaust ducts.
14. All metal parts of spray booths, exhaust ducts and piping systems conveying flammables or combustibles shall be properly grounded.
15. When spray booths are illuminated, it shall be done through heat-treated or hammered wire glass. Fixed lighting units only shall be used as a source of illumination and panels shall be so arranged to minimize breakage and so that normal accumulation of residue on the exposed surface of the panel will not be raised to a dangerous temperature by radiation or conduction from the source of illumination.
16. Each spray booth having a frontal area of more than nine (9) square feet in area and which is not equipped with doors, shall have a metal deflector or fire curtain not less than four and one half inches (4 ½") deep installed at the upper outer edge of the booth over the booth opening.
17. Each spray booth or dipping operation shall be separated from other operations by not less than three feet (3') or by a wall or partition or by a greater distance as the Fire Marshal may require.
18. Spray enclosures may not have a drying unit installed inside the spraying area but may have one installed adjacent with an interlocking ventilating system to thoroughly ventilate before drying, maintain a safe atmosphere and automatically shut down the heating system in case of ventilating system failure.

The spraying, drying, and ventilation apparatus shall be equipped with interlocks arranged to:

- Prevent operation of spraying apparatus while the drying operations are in progress.
 - Purge spray vapors from the spray booth/room for a period of not less than 3 minutes before the drying apparatus is rendered operable.
 - Having the ventilation system maintain a safe atmosphere within the spray booth/room during the drying process and automatically shut-off drying apparatus in the event of a failure of the ventilating system.
 - Shut-off the drying apparatus automatically if the air temperature within the booth exceeds 200° Fahrenheit.
19. Dip tanks of over one hundred fifty (150) gallons or ten (10) square feet in liquid surface area shall have a properly trapped overflow pipe leading to a safe location outside the building. Tanks, drain boards, supports and covers must be of noncombustible material. Covers shall be automatically or manually operated, with automatic closure in the event of a fire. Covers shall be kept closed when tanks are not in use.
 20. Storage of flammable or combustible liquids shall be in a storage cabinet labeled "**FLAMMABLE LIQUIDS**". Whenever flammable or combustible liquids are transferred from one container to another, both shall be grounded, this includes piping systems. All containers or piping, which is attached to a hose or flexible connection, shall have a shutoff valve at the connection.
 21. Spray booths shall be protected by an approved automatic fire-extinguishing system in accordance with CFC Chapters 9 and 15. Plans shall be submitted for review and approval by the Clovis Fire Department prior to installation.
 22. Spray booths installed inside buildings shall be provided with a building egress door that is visible from the booths egress door. The building egress door shall be easily identifiable, unobstructed, and in conformance with C.B.C. Chapter 10.