



CLARK COUNTY FIRE DEPARTMENT - FIRE PREVENTION BUREAU

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Permit Submittal Guideline

SPRAYING, DIPPING & POWDER COATING

This guide is to assist in the permitting process for obtaining an annual renewable operational permit to conduct spraying, dipping or powder coating operations using flammable or combustible liquids regulated by Chapter 24. An annual renewable operational permit is required per section 105.5.49 of the IFC.

The permits listed below must be obtained prior to applying for the Spraying and Dipping permit;

- 1. APPROVED BUILDING PLANS/PERMIT:** for the spray booth, dip tank or powder coating room.
- 2. FLAMMABLE/COMBUSTIBLE(F/C) LIQUIDS PERMIT:** If amount exceeds permit threshold, a permit is required for storage of F/C liquids when the amount in storage exceeds the following:
 - Flammable Liquid (flashpoint < 100 °F): 5 gallons indoors / 10 gallons outdoors
 - Combustible Liquid (flashpoint > 100 °F): 25 gallons indoors / 60 gallons outdoors
- 3. AUTOMATIC FIRE EXTINGUISHING SYSTEM PERMIT:** Provide verification an automatic fire extinguishing system is provided for the spray booth, dip tank or powder coating room.

PLEASE NOTE:

- If the building is sprinklered, the sprinklers shall be extended to the booth and exhaust vent per NFPA 13.
- If the building is not sprinklered, a dry chemical extinguishing system can be used.
- Industrial ovens used in connection with these processes shall be submitted for permits separately. See separate fire permit guide for Industrial Ovens submittal requirements.

APPLICABLE CODES:

The following codes and standard apply to this permit.

- *International Fire Code, 2024 edition (IFC)*
- *Clark County Fire Code Amendments, 2024 edition (CCFC)*
- *Standard for Spray Application Using Flammable and Combustible Materials, NFPA 33, 2021 edition*

SUBMITTAL REQUIREMENT CHECKLIST:

The requirements listed in this guide are not intended to be all inclusive, nor do they entail a limit to the extent of the information, etc., which may be necessary to properly evaluate the submitted plans and documents. Not all items may apply to your project. All documents shall be printed to .PDF file and uploaded as a PLAN.

1. PROJECT INFORMATION:

- Project name, address, and APN (Assessor's Parcel Number).
- Contractor's/Owner's contact information.
- Provide a copy of manufacturer's specification sheets for all components of spray booths, dip tanks and powder coating booths including the design engineering standards. If the booth is

pre-manufactured, provide a copy of the manufacturer's literature verifying that the booth is a listed assembly. All equipment shall be listed for its use.

- Provide enlarged **PROCESS PLAN** and narrative to clarify system operations (**SPRAY BOOTH, DIP TANK, POWDER COATING**) showing the following information depending on which type of process is being permitted.
- Information on Fire Protection systems provided for building and operations.

2. SITE PLAN: Provide site plan of the building showing the following locations:

- Provide a detailed floor plan of the building indicating the location(s) of the operations. Also include a site plan with dimensions to property lines.
- The spray booth(s) cannot exceed 10% of the total square footage of the suite or business to a maximum size of 1,500sq.ft.

SPRAY BOOTH: See section 2404 of the IFC for the design requirements for spray finishing. Provide diagrams that show the following:

- Spray floor plan showing door, duct and filter locations. Include the dimensions of doors and/or open faces. Also include the total building area and spray booth area. Show a 3-foot clearance around the spray booth
- Diagram of the Class 1, Division 2 electrical equipment
- Location(s) of interlocking devices
- Locations of F/C liquid storage.
- Exhaust duct locations, including roof penetrations, HVAC units, evaporative (swamp) coolers, and skylights. Please Note: that the exhaust termination shall be at least 6 ft above the roof, 10 ft from building openings, and 30 ft from lot lines
- Mechanical exhaust (fans) with a minimum ventilation rate of 100 ft/min
- Locations of bonding and grounding devices
- Portable fire extinguisher locations

DIP TANKS: See section 2405 of the IFC for the requirements for dipping operations. Provide diagrams that show the following:

- Location of the dip tank within the building
- Overflow drains
- Tank drain
- Temperature controls
- Tank lids and supports

POWDER COATING: See section 2406 of the IFC for the requirements for powder coating. The annual operational permit for powder coating rooms requires the following analysis and information to be submitted:

- Construction of powder coating rooms and booths
- Fire suppression systems
- Operations and maintenance
- Sources of ignition
- Ventilation
- Volatile Organic Compound (VOC) content of the powder in pounds per gallon

Provide diagrams that show the following:

- Floor plan of powder coating room
- Provide extinguisher location
- Show the exhaust routing

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