

## Permit Requirements Dip Tank

# 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  
**Email:** fireprevention@kerncountyfire.org



Please include completed Application for Permit (KCFD 200) with submittal

**Fee Amount: \$580.00**

**Fee Code: 1.7.1**

This document is to aid in the construction permitting process including Change of Use/Occupancy for a dip tank 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 section 2405**. Other Fire Department operational permits may be required.

1. Permits for Dip Tanks 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 the time of application submittal. Make check payable to Kern County Fire Department. **Visa and MasterCard accepted.**

### Purpose

This guideline is to provide the information necessary to ensure that the design and installation of Dip Tanks shall 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.

### Scope

This guideline is applicable to any Dip Tank operations utilizing flammable or combustible liquids. Dip-tank operations conducted in buildings used for Group A, I, or R occupancies shall be located in a room designed for that purpose, equipped with an approved automatic sprinkler system, and separated vertically and horizontally from other areas in accordance with the California Building Code.

### Requirements

**Construction of dip tanks.** Dip tanks shall be constructed in accordance with Sections 2405.3 through 2405.11 and NFPA 34. Dip tanks, including drain boards, shall be constructed of noncombustible material and their supports shall be of heavy metal, reinforced concrete, or masonry.

**Overflow.** Dip tanks greater than 150 gallons (568 L) in capacity or 10 square feet (0.93 m<sup>2</sup>) in liquid surface area shall be equipped with a trapped overflow pipe leading to an approved location outside the building. The bottom of the overflow connection shall be no less than 6 inches (152 mm) below the top of the tank.

**Bottom drains.** Dip tanks greater than 500 gallons (1893 L) in liquid capacity shall be equipped with bottom drains that are arranged to automatically and manually drain the tank quickly in the event of a fire unless the

viscosity of the liquid at normal atmospheric temperature makes this impractical. Manual operation shall be from a safe accessible location. Where gravity flow is not practicable, automatic pumps shall be provided. Such drains shall be trapped and discharged to a closed, vented salvage tank, or to an approved outside location.

*Dipping liquid temperature control.* Protection against the accumulation of vapors, self-ignition, and excessively high temperatures shall be provided for dipping liquids that are heated directly or heated by the surfaces of the object being dipped.

### **Fire Protection Equipment**

*Fixed Fire Extinguishing Equipment.* An approved automatic fire-extinguishing system or dip-tank cover in accordance with CFC Section 2405.3.4 shall be provided for the following dip tanks:

1. Dip tanks less than 150 gallons (568 L) in capacity or 10 square feet (0.93 m<sup>2</sup>) in liquid surface area.
2. Dip tanks containing a liquid with a flash point below 110°F (43°C) used in such a manner that the liquid temperature could equal or be greater than its flash point from artificial or natural causes, and having both a capacity of more than 10 gallons (37.9 L) and a liquid surface area of more than 4 square feet (0.37 m<sup>2</sup>).

*Fire Extinguishing System.* An approved automatic fire-extinguishing system shall be provided for dip tanks with 150 gallons (568 L) or more capacity or 10 square feet (0.93 m<sup>2</sup>) or larger in a liquid surface area. Fire-extinguishing system design shall be in accordance with NFPA 34.

### **Drying Apparatus**

Spray booths and spraying rooms shall not be alternately used for the purpose of drying arrangements which would cause 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 a 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)

Portable fire extinguishers. Areas in the vicinity of dip tanks shall be provided with portable fire extinguishers complying with CFC Section 906 and suitable for flammable and combustible liquid fires as specified for extra (high) hazard occupancies.

### **Conveyor Interlocks**

Dip tanks utilizing a conveyor system shall be arranged such that in the event of a fire, the conveyor system shall automatically cease motion and the required tank bottom drains shall open.

### **Review and Inspection Process**

A minimum of three (3) sets of plans and the appropriate equipment data sheets for the installation of the dip tanks 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 shall be submitted by the licensed fire protection contractor (C-16) responsible for the work. The tank may not be permitted until both plans 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.

**Violation(s)**

See Kern County Ordinance 17.32.016 and 17.32.026 if permits are not submitted.

Additional Requirements: \_\_\_\_\_