Permit Requirements
Carbon Dioxide (CO2) Systems Used
In Beverage Dispensing Applications

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: $260.00
Fee Code: 1.14

1. Permits for CO2 Systems shall be applied for at 2820 M St., Bakersfield, CA 93301.
2. Fee shall be submitted at time of application submittal. Make check payable to Kern County Fire Department. Visa and MasterCard accepted.
3. A Carbon Dioxide System for Beverage Dispensing with more than 100 pounds of CO2 shall comply with the 2016 California Fire Code (CFC) Sections 5307.2 through 5307.5.2.
4. Provide three (3) copies of plans, mechanical drawings only, and one (1) set of the most current system components and design cut sheets from manufacturer's manual.
5. Equipment. The storage, use, and handling of liquid carbon dioxide shall be in accordance with CFC Chapter 53 and the applicable requirements of NFPA 55, Chapter 13. Insulated liquid carbon dioxide systems shall have pressure relief devices vented in accordance with NFPA 55.
6. Protection from damage. Carbon dioxide systems shall be installed so the storage tanks, cylinders, piping and fittings are protected from damage by occupants or equipment during normal facility operations.
7. Required protection. Where carbon dioxide storage tanks, cylinders, piping and equipment are located indoors, rooms or areas containing carbon dioxide storage tanks, cylinders, piping and fittings and other areas where a leak of carbon dioxide can collect shall be provided with ventilation in accordance with CFC Section 5307.5.1 or an emergency alarm system in accordance with CFC Section 5307.5.2.
8. Ventilation. Mechanical ventilation shall be in accordance with the California Mechanical Code and shall comply with all of the following:
   A. Mechanical ventilation in the room or area shall be at a rate of not less than 1 cubic foot per minute per square foot.
   B. Exhaust shall be taken from a point within 12 inches of the floor.
   C. The ventilation system shall be designed to operate at a negative pressure in relation to the surrounding area.
9. Emergency alarm system. An emergency alarm system shall comply with all of the following:
   A. Continuous gas detection shall be provided to monitor areas where carbon dioxide can accumulate.
   B. The threshold for activation of an alarm shall not exceed 5,000 parts per million (9,000 mg/m3).
   C. If a fire alarm system is in the building the CO2 alarm shall be integrated into the fire alarm system and shall be monitored off site.