

**Permit Requirements  
Compressed Natural Gas (CNG)  
Motor Vehicle Fuel Dispensing Stations**

**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: \$215.00 (Fee Code: 1.1)**

**2019 California Fire Code – Chapter 23 & 53, NFPA 52**

This document is to aid in the construction permitting process including Change of Use/Occupancy for CNG permits 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 Chapters 23 & 53**. Other Fire Department operational permits may be required.

1. Permits for CNG shall be applied for at 2820 M St., Bakersfield, CA 93301.
2. A drawing illustrating the location of the vessel support, piping, the method of grounding and bonding, and other requirements specified herein shall be provided for review and approval.
3. All equipment shall be approved or listed.
4. Fueling operations shall be conducted by qualified attendants or by persons trained. Self-service CNG-dispensing systems, including key, code, and card lock dispensing systems, shall be limited to the filling of permanently mounted fuel containers on CNG-powered vehicles. In addition to the requirements, self-service CNG-dispensing systems shall be in accordance with the following:
  - a. The system shall be provided an emergency shutoff switch located within 75 ft. of, but not less than 25 feet from, dispensers.
  - b. The owner of the dispensing facility shall ensure the safe operation of the system and the training of users.
5. Compression, storage, and dispensing equipment shall be located aboveground.

**Exception #1:** Compression, storage, or dispensing equipment is allowed in buildings of noncombustible construction, as set forth in the Building Code, which are unenclosed for three quarters or more of the perimeter.

**Exception #2:** Compression, storage, and dispensing equipment is allowed to be located indoors.
6. Location of dispensing operations on the property.
  - a. Not beneath power lines.
  - b. Ten feet or more from the nearest building or property line which could be built on, public street, sidewalk, or source of ignition; **Exception:** Dispensing equipment does not need to be separated from canopies constructed in accordance with the Building Code.
  - c. Twenty-five feet or more from the nearest rail of any railroad track and 50 feet or more from the nearest rail of any railroad main track or any railroad or transit line where the power for train propulsion is provided by an outside electrical source such as third rail or overhead catenary.
  - d. Fifty feet or more from the vertical plane below the nearest overhead wire of a trolley bus line.

7. Compression storage and dispensing equipment shall be located aboveground outside.

**Dispensing devices.** Dispensing devices shall be located as follows:

- a. Ten feet or more from property lines.
  - b. Ten feet or more from buildings having combustible exterior wall surfaces or buildings having noncombustible exterior wall surfaces that are not part of a one-hour fire-resistive assembly.  
**Exception:** Canopies constructed in accordance with the Building Code.
  - c. Such that all portions of the vehicle being fueled will be on the premises of the motor vehicle fuel-dispensing station.
  - d. Such that the nozzle, when the hose is fully extended, will not reach within 5 feet of building openings.
  - e. Twenty feet or more from fixed sources of ignition.
8. Pressure regulators shall be designed, installed, or protected so their operation will not be affected by the elements.
9. Gas piping to the equipment shall be provided with a remote, readily accessible manual shut-off valve.
10. An emergency shutdown device shall be located within 75 feet of, but not less than 25 feet from, dispensers and shall also be provided in the compressor area. Upon activation, the emergency shutdown shall automatically shut off the power supply to the compressor and close valves between the main gas supply and the compressor and between the storage containers and dispensers. Emergency shutdown devices shall be distinctly marked for easy recognition with a permanently affixed legible sign.
11. A documented procedure, which explains the logical sequence for discharging the cylinder, shall be provided to the Fire Prevention Unit for review and approval. The procedure shall include what actions the operator will take in the event of a low-pressure or high-pressure natural gas release during the discharging activity. A drawing illustrating the arrangement of piping, regulators, and equipment settings shall be provided for review and approval. The drawing shall illustrate the piping and regulator arrangement and shall be shown in spatial relation to the location of the compressor, storage vessels, and emergency shutdown devices.
12. Table CFC 2308.8.1.2.3 shall be used for separation distance.

**TABLE 2308.8.1.2.3  
Separation Distance for Atmospheric Venting of CNG**

<b>EQUIPMENT OR FEATURE</b>	<b>MINIMUM SEPARATION (feet)</b>
Buildings	25
Building openings	25
Lot lines	15
Public ways	15
Vehicles	25
CNG compressor and storage vessels	25
CNG dispensers	25

13. The cylinder support shall be grounded in accordance with the California Electrical Code. The cylinder valve shall be bonded prior to the commencement of venting operations.
14. A vent tube to divert gas flow to the atmosphere shall be installed. **The vent tube shall be constructed in accordance with Section 5305.5 and with the California Mechanical Code.** The vent tube shall not be provided with a rain cap or other feature, which would limit or obstruct the gas flow. The vent tube shall be capable of dispensing the gas a minimum of 10 feet above grade level. At the connection fitting of the vent tube and the CNG cylinder, a listed bi-directional detonation flame arrester shall be provided.

15. Approved **NO SMOKING** signs shall be posted within 10 feet of the cylinder support structure or appurtenance. Approved **CYLINDER SHALL BE BONDED**; signs shall be posted on the cylinder support structure or appurtenance.
16. Storage vessels for CNG shall be located 20 feet or more from aboveground tanks containing flammable or combustible liquids.
17. Warning sign with the words, "Stop Motor", "No Smoking", "Flammable Gas" shall be posted at dispensing station and compressor areas. Location shall be determined by local conditions, but the lettering shall be large enough to be visible and legible from each point of transfer.
18. A portable fire extinguisher having a rating of not less than 20-B:C shall be provided at the dispensing area. Breakaway protection shall be provided in a manner that, in the event of a pull-away, natural gas ceases to flow at any separation.
19. Permits from the Authority Having Jurisdiction for any storage, transporting, dispensing, or handling on-site, shall be obtained and their personnel shall be present during product-line testing and final approval of the facility.
20. During hours of operation, stations having unsupervised dispensing shall be provided with a fire alarm transmitting device. A telephone not requiring a coin to operate is acceptable.

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

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Mailing Address:  
Kern County Fire Department  
2820 M St.  
Bakersfield, CA 93301  
Attn: Fire Prevention