

**CHAPTER 35
FLAMMABLE GASES**

**SECTION FC 3501
GENERAL**

3501.1 Scope. This chapter shall govern the storage, handling and use of flammable gases.

Exceptions:

1. Flammable gases used as refrigerants in refrigerating systems, as set forth in FC606.
2. Liquefied petroleum gases, as set forth in FC Chapter 38.
3. Fuel-gas systems, as set forth in the construction codes, including the Fuel Gas Code, other than gaseous hydrogen systems.
4. Compressed natural gas motor fuel-dispensing facilities as set forth in FC2208.
5. Pyrophoric gases, as set forth in FC Chapter 41.
6. Liquefied natural gas (LNG) as set forth in FC Chapter 32.

3501.2 Permits. Permits shall be required as set forth in FC105.6.

3501.3 General. Flammable gases shall be stored, handled and used in accordance with this chapter, FC Chapter 30 and NFPA 55. Cryogenic fluids shall additionally comply with the requirements of FC Chapter 32.

3501.4 Supervision. Except as otherwise provided for ethylene oxide, compressed natural gas and methane recovery, the handling and use of flammable gases in quantities requiring a permit shall be under the personal supervision of a certificate of fitness holder. The storage of flammable gases in quantities requiring a permit shall be under the general supervision of a certificate of fitness holder.

3501.4.1 Ethylene oxide. The handling and use of flammable compositions of ethylene oxide in any amount, including the cleaning and maintenance of the sterilizer, shall be under the personal supervision of a person holding a certificate of fitness.

3501.4.2 Compressed natural gas. The connecting and disconnecting of CNG containers shall be performed by a person holding a certificate of fitness. The handling and use of CNG containers in quantities requiring a permit, or for purposes of operating a tar kettle, conducting torch operations, curing concrete, drying plaster and similar applications, or conducting hot air balloon operations, shall be under the personal supervision of a person holding a certificate of fitness applicable to such operation. In addition, a pilot's license

issued by the United States Federal Aviation Administration shall be required for hot air balloon operations involving the handling and use of CNG.

3501.4.3 Methane recovery. Methane recovery facilities shall be operated under the personal supervision of a person holding a certificate of fitness to recover methane gas from landfills.

3501.5 Flood hazard. Stationary flammable gas containers located in areas of special flood hazard or on the premises of Group I-2 occupancies that are hospitals located in shaded X-Zones (as defined in Section G201.2 of Appendix G of the Building Code) shall comply with Section G307.5 of the Building Code.

3501.5 Prohibitions. It shall be unlawful to:

1. fill a container with a flammable gas, except as authorized by this code or the rules, including FC 309.5.4, 2208, 2209 and 3507;
2. manufacture, generate or compress acetylene;
3. use an acetylene generator; or
4. fill balloons with hydrogen or any other flammable gas, or to possess, store, handle, use, transport, or sell any such balloon.

SECTION FC 3502 DEFINITIONS

3502.1 Definitions. The following terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meanings shown herein.

FLAMMABLE GAS. A material which has a boiling point and becomes a gas at 68°F (20°C) or less at 14.7 pounds per square inch absolute (psia) (101 kPa) of pressure which:

1. Is ignitable at 14.7 psia (101 kPa) when in a mixture of 13 percent or less by volume with air, in accordance with testing procedures set forth in ASTM E 681; or
2. Has a flammable range at 14.7 psia (101 kPa) with air of at least 12 percent, regardless of the lower explosive limit, in accordance with testing procedures set forth in ASTM E 681.

FLAMMABLE LIQUEFIED GAS. A liquefied compressed gas which, under a charged pressure, is partially liquid at a temperature of 68°F (20°C) and which is a flammable gas.

METAL HYDRIDE. A chemical compound composed of one or more hydrogen-absorbing metallic elements, and hydrogen.

METAL HYDRIDE HYDROGEN STORAGE SYSTEM. A closed system designed to store and release hydrogen through the use of a metal hydride.

MICROTURBINE. A turbine-driven electrical generator with an electric generating capacity of not more than 500 kW, fueled by piped natural gas that is compressed by ancillary compressing equipment to a pressure exceeding 6 psig (689.5 kPa).

SECTION FC 3503 GENERAL REQUIREMENTS

3503.1 Quantities not exceeding the maximum allowable quantity per control area. Flammable gases in amounts not exceeding the maximum allowable quantity per control area set forth in FC2703.1 shall be stored, handled and used in accordance with FC 2701, 2703, 3501, 3503, 3506, 3507 and 3508.

3503.1.1 Special limitations for indoor storage, handling and use. Flammable gases shall not be stored, handled or used in Group A, B office, E, I or R occupancies.

Exceptions:

1. Containers not exceeding a capacity of 250 SCF (7.08 m³) used for maintenance purposes or operation of equipment.
2. Food service operations conducted in accordance with FC3803.2.1.7.

3503.1.1.1 Medical gases. It shall be unlawful to store, handle or use flammable gas as an anesthetizing agent. Medical gas systems using flammable gas for other approved purposes shall be located in medical gas storage rooms or gas cabinets as set forth in FC3006.

3503.1.1.2 Aggregate quantity. The aggregate quantities of flammable gases used for maintenance purposes and operation of portable equipment shall not exceed the maximum allowable quantity per control area set forth in FC Table 2703.1.1(1).

3503.1.2 Storage containers. Containers for flammable gases shall be designed, constructed, installed, operated and maintained in accordance with FC Chapter 30.

3503.1.3 Emergency shutoff. Flammable gas piping systems shall be provided with approved manual or automatic emergency shutoff valves that can be activated at each point of use and at each source of supply.

3503.1.3.1 Shutoff at source. A manual or automatic fail-safe emergency shutoff valve shall be installed on supply piping at the container or other source of supply. Manual or automatic valves on the containers supplying the flammable gas may serve as the emergency shutoff valve when the containers are the sole source of supply and are not manifolded.

3503.1.3.2 Shutoff at point of use. A manual or automatic emergency shutoff valve shall be installed on the supply piping at the point of use or at a point where the equipment using the gas is connected to the supply system.

3503.1.4 Sources of ignition. Protection against sources of ignition in areas in which flammable gases are being stored or used shall be provided in accordance with FC2703.7 and in compliance with the following requirements:

3503.1.4.1 Static-producing equipment. Static-producing equipment located in flammable gas storage areas shall be grounded.

3503.1.4.2 Signs. “No Smoking” signs shall be posted at entrances to and in areas containing flammable gas containers, piping and equipment in accordance with FC2703.7.1.

3503.1.5 Electrical. Electrical wiring and equipment shall be installed and maintained in accordance with the Electrical Code.

3503.1.5.1 Bonding of electrically conductive components. Exposed noncurrent-carrying metal components, including metal gas piping, that are part of a flammable gas supply system located in a hazardous location shall be bonded to a grounded conductor in accordance with the provisions of the Electrical Code.

3503.1.5.2 Static-producing equipment. Static-producing equipment located in flammable gas storage or use areas shall be grounded.

3503.1.6 Liquefied flammable gases and flammable gases in solution. Containers of liquefied flammable gases and flammable gases in solution shall be positioned in the upright position or positioned so that the pressure relief valve is in direct contact with the vapor space of the container.

Exceptions:

1. Containers of flammable gases in solution with a capacity of 1.3 gallons (5 L) or less.
2. Containers of flammable liquefied gases, with a capacity not exceeding 1.3 gallons (5 L), designed to preclude the discharge of liquid from safety relief devices.

3503.2 Quantities exceeding the maximum allowable quantity per control area. The storage, handling and use of flammable gases in amounts exceeding the maximum allowable quantity per control area set forth in FC2703.1 shall be in accordance with FC Chapter 27 and this chapter.

**SECTION FC 3504
STORAGE**

3504.1 Indoor storage. Indoor storage of flammable gases in amounts exceeding the maximum allowable quantity per control area set forth in FC Table 2703.1.1(1), is not allowed where outdoor storage is available on the premises. Indoor storage shall be in accordance with FC 2701, 2703 and 2704, and this chapter.

3504.1.1 Explosion control. Buildings or portions thereof containing flammable gases shall be provided with explosion control in accordance with FC911.

3504.1.2 Maximum storage quantity. Storage of flammable gases shall not exceed 15,000 SCF (424.8 m³) in any building or structure, except at construction sites where larger quantities of CNG are authorized by rule.

3504.1.3 Flammable gas storage of 3,500 SCF (99.12 m³) or less. Indoor storage shall be protected against damage or injury from falling objects or surrounding activity, and be located not less than:

1. 20 feet (6096 mm) from all classes of flammable and combustible liquids, oxidizing gases and readily combustible materials, such as paper and combustible fibers.
2. 25 feet (7620 mm) from open flames, ordinary electrical equipment or other sources of ignition.
3. 50 feet (15 240 mm) from air-conditioning equipment, air compressors and intakes of ventilation.
4. 50 feet (15 240 mm) from other flammable gas storage.

3504.1.4 Flammable gas storage of more than 3,500 SCF (99.12 m³). Except as otherwise provided in the rules with respect to construction sites, a storage room may contain more than one storage area, provided that each storage area does not exceed 3,500 SCF (99.12 m³) and storage areas are separated from each other by at least 50 feet (15 240 mm) or an approved masonry barrier having a minimum fire resistance rating of 2 hours. Each such storage area shall additionally comply with the requirements of FC 3504.1.2 and 3504.1.3.

3504.2 Outdoor storage. Outdoor storage of flammable gases in amounts exceeding the maximum allowable quantity per control area set forth in FC Table 2703.1.1(3) shall be limited to a maximum storage of 3,500 SCF (99.12 m³) except where the provisions of this code or the rules authorize storage in larger quantities at construction sites. Outdoor storage of flammable gases shall be in accordance with FC 2701, 2703 and 2704, and this chapter.

3504.2.1 Location of outdoor storage areas. Outdoor storage areas for flammable gases shall be located at or above grade level, and in accordance with FC3504.2.1.1 and FC Table 3504.2.1, as applicable.

3504.2.1.1 Proximity to hazards. Storage shall not be located where the stored flammable gases would be exposed to the following hazards in the event of the failure of their structure or containment systems:

1. Electric power lines.
2. Piping containing flammable or combustible liquids.
3. Piping containing flammable gases.
4. Piping containing oxidizing materials.

**FC TABLE 3504.2.1
FLAMMABLE GASES DISTANCE FROM OUTDOOR STORAGE AREAS TO EXPOSURES**

TYPE OF OUTDOOR EXPOSURE	FLAMMABLE GAS STORAGE AREA MORE THAN 1500 SCF UP TO MAXIMUM 3500 SCF MINIMUM DISTANCE TO OUTDOOR EXPOSURE (FEET)
Building or structure of combustible construction	10 ^a
Building or structure of noncombustible construction	5 ^a
Building openings	10
Flammable and combustible liquids Aboveground – 1,000 gallons or less	10 ^a
Flammable and combustible liquids Aboveground – in excess of 1,000 gallons	20 ^a
Flammable and combustible liquids Underground tank – 1,000 gallons or less	10 ^a
Flammable and combustible liquids Underground tank – 1,000 gallons or less Vent or fill opening of tank	15 ^a
Flammable and combustible liquids Underground tank – in excess of 1,000 gallons	15 ^a
Flammable and combustible liquids Underground tank – in excess of 1,000 gallons Vent or fill opening of tank	15 ^a
Flammable gas storage area, any pressure 1,500 SCF or less	10 ^a
Flammable gas storage area, any pressure More than 1,500 SCF up to maximum 3,500 SCF	20 ^a
Oxygen storage – 20,000 SCF or less	In accordance with NFPA 51 ^a
Oxygen storage – in excess of 20,000 SCF	In accordance with NFPA 55 ^a
Combustible material or combustible waste	10 ^a
Air compressor intakes or inlets to ventilating or air-conditioning equipment	5
Group A occupancies and public gathering places	25
Public sidewalks and parked motor vehicles	10
Public streets, private roads and lot lines	10 ^a

For SI: 1 foot = 304.8 mm, 1 cubic foot = 0.02832 m³, 1 gallon = 3.785 L.

a. The minimum required distances shall be reduced to 5 feet when protective structures having a minimum fire-resistance rating of 2 hours interrupt the line of sight between the container and the exposure. The protective structure shall be at least 5 feet from the exposure. The configuration of the protective structure shall be designed to allow natural ventilation to prevent the accumulation of hazardous gas concentrations.

3504.2.2 Proximity to flammable and combustible liquid storage. Storage within 50 feet (15 240 mm) of aboveground storage of flammable and combustible liquids shall be located on ground higher than such storage, except where dikes, diversion curbs, grading or walls are used to prevent these liquids from accumulating under the flammable gas storage.

3504.2.3 Electrical equipment. Electrical equipment within 3 feet (914 mm) in any direction of an outdoor flammable gas storage area shall comply with the Class I, Division 2 wiring requirements of the Electrical Code for hazardous locations, unless such electrical equipment is separated from such area by a wall or other solid partition having no openings.

SECTION FC 3505 USE

3505.1 General. Flammable gases in amounts exceeding the maximum allowable quantity per control area indicated in FC Table 2703.1.1(1) or 2703.1.1(3) shall be used in accordance with FC 2701, 2703 and 2705, and this chapter.

SECTION FC 3506 ETHYLENE OXIDE

3506.1 Scope. This section shall govern the storage, handling and use of flammable gas containing ethylene oxide used for sterilization purposes.

3506.2 General. Flammable gases containing ethylene oxide used for sterilization purposes shall be stored, handled and used in compliance with the requirements of this chapter and FC Chapter 30. Ethylene oxide shall additionally be stored, handled and used in compliance with the requirements of NFPA 55.

3506.3 Design and installation requirements. The design and installation of sterilization systems shall comply with the requirements of FC 3506.3.1 through 3506.3.7.

3506.3.1 Sterilizer design. The sterilization equipment shall be of a type listed by an approved testing laboratory, and approved by the department, and having a chamber volume of not more than 10 cubic feet (0.2832 m³).

3506.3.2 Sprinkler protection. Sterilization systems shall be located in a room or other area protected by a sprinkler system.

3506.3.3 Proximity to hazard. Sterilization systems shall be installed away from sources of heat and ignition, means of egress and areas of activity, and shall not be installed in any room or other area in which flammable liquids or flammable gases, other than sterilizer gases, are stored, handled or used.

3506.3.4 Sterilization system room and local area ventilation. Room ventilation and local area ventilation shall comply with the requirements of FC 3506.3.4.1 and 3506.3.4.2.

3506.3.4.1 Room ventilation. Rooms in which sterilization systems are installed shall be equipped with ventilation systems that provide not less than 10 air changes per hour.

3506.3.4.2 Local area ventilation. When a local ventilation system is required by the regulations of the United States Department of Labor, such ventilation system shall comply with the following requirements:

1. The discharge point of the ventilation system shall be at least 25 feet (7620 mm) from pedestrian traffic, building openings or sources of ignition. Prevailing wind direction and location of adjacent buildings shall be considered in selecting the discharge point.
2. At each discharge location there shall be a durable sign, conspicuously posted, that reads “DANGER—FLAMMABLE GAS.”
3. Signage shall appear on the duct at intervals of not more than 20 feet (6090 mm) and at least once in each room and each story traversed by the duct. Such signage shall be by means of metal tags, stenciling, stamping or adhesive markers, which shall be attached or imprinted in a manner that is not readily removable.
4. A sparkproof centrifugal fan with backward curved blades designed for continuous operation shall be used, and the impeller and the ring around the impeller drive shaft shall be nonferrous.

3506.3.5 Vent lines. Sterilization system vent lines shall be designed and installed in accordance with the following requirements:

1. The discharge point of vent lines shall be at least 25 feet (7620 mm) from pedestrian traffic, building openings and sources of ignition. Prevailing wind direction and location of adjacent buildings shall be considered in selecting the discharge point.
2. At each discharge location there shall be a durable sign, conspicuously posted, that reads “Danger—Flammable Gas.”
3. Signage shall appear on the vent line at intervals of not more than 20 feet (6096 mm) and shall be present in at least one place in each room and in each story traversed by the duct.
4. A sparkproof centrifugal fan with backward curved blades designed for continuous operation shall be used, and the impeller and the ring around the impeller drive shaft shall be nonferrous.
5. Vent terminals shall be provided with a flash arrester, provided that the manufacturer of the sterilizer or the testing laboratory does not prohibit same. The flash arrester, when used, shall be constructed of material compatible with ethylene oxide and installed in such a manner as not to restrict gas flow.

3506.3.6 Storage. Flammable gases containing ethylene oxide shall be stored in compliance with the following requirements:

1. Only containers of the type, composition and size approved by the manufacturer for the particular model of sterilization system shall be stored or used.
2. A one-day supply of flammable gases that contains ethylene oxide, but not more than 12 containers, may be stored in its original packaging in the room or other area in which the sterilizer is installed, provided that:
 - 2.1. Such room or other area is above grade.
 - 2.2. The containers are stored at room temperature, away from sources of heat and ignition.
 - 2.3. The containers are stored not less than 5 feet (1524 mm) from the sterilizer, on open shelving protected by a sprinkler system or in an approved flammable liquid storage cabinet.
 - 2.4. In addition to the amounts specified in FC3506.3.6(2), a maximum of 3 gallons (11.4 L) liquid volume (9908 grams, or 21.8 pounds) of flammable gases that contain ethylene oxide may be stored in their original packaging in a flammable gas storage room, provided that such storage room meets the requirements of the construction codes, including the Building Code, is located above grade, is away from sources of heat and ignition, and is protected by a sprinkler system. Storage of flammable gases that contain ethylene oxide, in excess of 3 gallons (11.4 L) liquid volume, shall be in a detached above grade building designed for the storage of flammable gas in accordance with this chapter and the construction codes. For purposes of complying with the foregoing, 3-gallon (11.4 L) storage limitation, FC Table 3506.3.6 shall be used to determine the quantity of ethylene oxide being stored.

**FC TABLE 3506.3.6
MAXIMUM NUMBER OF ETHYLENE OXIDE CONTAINERS NOT EXCEEDING 3 GALLON LIMIT**

Quantity of gas per container (grams)	Maximum number of containers not exceeding 3 gallon limit
100	99
134	73
150	66
170	58
200	49

For SI: 1 gallon = 3.785 L.

3506.3.7 Certification of installation. The owner of the facility in which the sterilization system is installed shall maintain on the premises and make available for inspection by any representative of the department a written certification from the manufacturer of the sterilizer, the certificate of fitness holder responsible for the supervision of the sterilization system and/or a New York State licensed professional engineer, that the installation conforms to the requirements of the manufacturer, the approved testing laboratory that listed the sterilizer and this section.

3506.4 Operation and maintenance. Sterilization systems shall be operated and maintained in compliance with the following requirements:

1. The quantity of flammable gases that contain ethylene oxide connected to the sterilizer at any one time shall be no more than required for a single sterilization cycle and in no circumstance more than 200 grams (7 ounces) net weight. Containers shall be opened only while connected to the sterilizer in the manner specified by the manufacturer of the sterilizer.
2. Empty or underweight containers, containers with past expiration dates, and containers which fail to open in the sterilizer shall be kept separate from other containers and promptly removed from the premises and lawfully disposed of. Containers shall not be incinerated.

3506.5 Portable fire extinguishers. At least one portable fire extinguisher having a minimum 40 B:C rating shall be provided in the area where flammable gases containing ethylene oxide are stored or used. The maximum travel distance to such extinguisher shall not exceed 30 feet (9144 mm).

SECTION 3507 METAL HYDRIDE HYDROGEN STORAGE SYSTEMS

3507.1 General. Metal hydride hydrogen storage systems shall be designed, installed, operated and maintained in accordance with this section. Metal hydride hydrogen storage systems may only be used to provide motive power on powered industrial trucks.

3507.2 Hazard classification. Metal hydride hydrogen storage systems shall be classified pursuant to FC 2701.2 based on the hazard presented by the hydrogen it absorbs and/or stores, without regard for the metal hydride content.

3507.3 Design requirements. Metal hydride hydrogen storage systems shall be designed and installed in compliance with the requirements of this section.

3507.3.1 Listing or approval for intended use. Metal hydride hydrogen storage systems shall either be listed for the purpose for which they are used or be of the type for which a certificate of approval has been issued.

3507.3.2 Containers. Containers designed for use in metal hydride hydrogen storage systems shall be designed to be filled, refilled or emptied of metal hydride only by the original equipment manufacturer or a trained and knowledgeable supplier, constructed in accordance with FC 3003.1, and marked in accordance with FC3507.3.3.

3507.3.3 Marking and labeling. Metal hydride hydrogen storage systems shall be marked and labeled in accordance with FC3003.2, and FC 3507.3.3.1 through 3507.3.3.4.

3507.3.3.1 System markings. Metal hydride hydrogen storage systems shall be marked with the following.

1. Manufacturer's name;
2. Manufacturer's emergency contact information;
3. A unique code or serial number specific to the system;
4. System name or product code that identifies the system by the type of chemistry used in the system;
5. Limitations on refilling of containers that include rated charging pressure and capacity; and
6. Service life indicating the last date the metal hydride hydrogen storage system can be used.

3507.3.3.2 Valve markings. Metal hydride hydrogen storage system valves shall be marked with the following information:

1. Manufacturer's name;
2. The type of metal hydride hydrogen storage system with which the valve is compatible; and
3. Service life indicating the last date the valve can be used.

3507.3.3.3 Pressure relief device markings. Metal hydride hydrogen storage system pressure relief devices shall be marked with the following information (markings for pressure relief devices integral to a valve may be made on the valve):

1. Manufacturer's name;
2. The type of metal hydride hydrogen storage system with which the device is compatible; and
3. Activation parameters that include temperature and/or pressure.

3507.3.3.4 Container markings. Containers used in metal hydride hydrogen storage systems shall be marked with the following information:

1. Manufacturer's name;
2. Standard to which the container was designed and constructed;

3. Date of manufacturer's initial inspection and testing;
4. Individual serial number;
5. The type of metal hydride hydrogen storage system; and
6. Service life identifying the last date the container can be used.

3507.3.4 Physical protection. Metal hydride hydrogen storage systems installed on powered industrial trucks shall be designed and installed in compliance with the requirements of this section.

3507.3.4.1 Securing containers. The installation shall be designed to secure containers from movement when the truck is in motion.

3507.3.4.2 Impact protection. The installation shall be designed to minimize the risk of release of metal hydride or hydrogen gas in the event of a physical impact. System components shall not extend beyond the truck platform or chassis.

3507.4 Operational and maintenance requirements. Metal hydride hydrogen storage systems shall be operated and maintained in compliance with the requirements of this section.

3507.4.1 Valves. Container valves shall remain closed except when containers are connected for use and the hydrogen-powered equipment is in use.

3507.4.2 Protection from temperature extremes and falling objects. Metal hydride hydrogen storage systems shall comply with the requirements of FC 3003.5.4 and 3003.5.5.

3507.4.3 Refilling of containers. The refilling of metal hydride hydrogen storage system containers with metal hydride shall be in accordance with the listing or approval requirements and manufacturers' instructions. The refilling of metal hydride hydrogen storage systems with hydrogen shall be in accordance with FC 309 and 2209.

3507.4.4 Periodic inspection and testing of containers. Metal hydride hydrogen storage system containers shall be inspected, tested and requalified for service at least once every 5 years in accordance with the requirements of the United States Department of Transportation.

3507.4.5 Hydrogen purity. The purity of the hydrogen generated by a metal hydride hydrogen storage system shall meet or exceed the listing or approval requirements, and the design specifications of the truck to be powered by the hydrogen supplied.

SECTION FC 3508 COMPRESSED NATURAL GAS

3508.1 Scope. This section shall govern the storage, handling and use of compressed natural gas (CNG).

Exceptions:

1. Storage, handling and use of CNG, including dispensing, for use as a fuel in motor vehicles, as set forth in FC Chapter 22.
2. The storage, handling and use of CNG in connection with special effects.

3508.2 General. Compressed natural gas shall be stored, handled and used in accordance with this chapter, including this section, and the rules.

3508.3 General prohibitions. It shall be unlawful to:

1. fill a CNG container with CNG or transfer CNG from one container to another, except as authorized by FC2208.
2. store, handle or use CNG in any container with a capacity greater than 381 SCF.
3. store, handle or use CNG in a basement, cellar or other area below grade, except as authorized by the commissioner.
4. store, handle or use CNG without a permit when such storage, handling or use exceeds the quantities set forth in FC105.6.
5. store CNG in any outdoor or indoor storage facility, or store, handle or use CNG for a stationary CNG installation, that has not been approved.
6. store, handle or use in, or bring or allow into any residential occupancy, or on any lot containing a building used for a residential occupancy, any CNG container with a capacity greater than 8.7 SCF, except as authorized by the commissioner.
7. store, handle or use in, or bring or allow into any nonresidential building, any CNG container with a capacity greater than 8.7 SCF, except as authorized by the commissioner.
8. store CNG containers on the roof of any building.
9. handle or use on the roof of any building CNG containers with a capacity greater than 8.7 SCF of gas, except as authorized by the commissioner.
10. store, handle or use CNG in or on motor vehicles, except as temporary storage incidental to transportation, or as a fuel for generating motive power for a motor vehicle, or otherwise authorized by the commissioner.

11. store, handle or use CNG for a stationary installation in any area where access to piped natural gas from a public utility is available, except as authorized by the commissioner.
12. store, handle or use CNG in any equipment used or previously used for LPG, except as may be authorized by the commissioner on an emergency basis.
13. store, handle or use CNG for space heating or water heating, except as authorized by the commissioner.
14. use nonmetallic pipe, tubing and components for any installation, appliance or equipment using CNG, except as authorized by the commissioner.
15. store, handle or use CNG at bazaars, carnivals, street fairs and similar outdoor events, including public gathering places.
16. store, handle, use or sell any CNG that has not been satisfactorily odorized with mercaptans or other approved chemical.

SECTION FC 3509 METHANE RECOVERY FROM LANDFILLS

3509.1 Recovery operations. The commissioner shall promulgate rules relating to the recovery of methane gas from landfills, to ensure the safe recovery and processing thereof.

SECTION FC 3510 MICROTURBINES

3510.1 Scope. This section shall govern the design, installation, operation and maintenance of microturbines when the aggregate electrical energy produced by all microturbines on or within a single building, including building roofs and setbacks, does not exceed 2,000 kW.

3510.2 Permits. Permits shall be required as set forth in FC105.6.

3510.3 Supervision. The operation of a microturbine during regular business hours shall be under the personal supervision of a certificate of fitness holder. At all other times, a microturbine shall be under the general supervision of a certificate of fitness holder. Certificate of fitness holders shall be trained by the manufacturer or other qualified and knowledgeable person in the safe operation of the equipment, including how to safely shut down the equipment in the event of an emergency.

3510.3.1 Alarm monitoring. The alarms initiated from the operation of a microturbine shall be annunciated both locally and remotely as required by the construction codes, including the Building Code and Mechanical Code, and the Electrical Code. The remote panel shall be located in a continuously supervised location on the premises.

3510.4 Design and installation. Microturbines shall be designed and installed in accordance with the construction codes, including the Building Code and the Mechanical Code, and the Electrical Code. A copy of the design and installation documents for microturbine installations approved by the Department of Buildings shall be submitted to the department prior to installation.

3510.5 Operation and maintenance. Facilities housing microturbines shall be operated and maintained in compliance with the requirements of FC 3510.5.1 through 3510.5.4.

3510.5.1 Signage and diagrams. Signage and diagrams shall be provided in compliance with the requirements of FC 3510.5.1.1 through 3510.5.1.3.

3510.5.1.1 Emergency gas shutoff valve. The fail safe emergency natural gas shutoff valve shall have a durable sign conspicuously posted near such valve that reads: "MICROTURBINE EMERGENCY GAS SHUTOFF."

3510.5.1.2 Fuel shutoff valve diagram. A durable diagram shall be conspicuously posted on all doors and other entrances to a microturbine room or area indicating the location of all manual and automatic natural gas shutoff valves.

3510.5.1.3 Gas piping. A durable sign shall be conspicuously posted on or near each door or other entrance to a room or outdoor area in which a microturbine is located, and on or adjacent to the microturbine itself, that reads "HIGH PRESSURE NATURAL GAS."

3510.5.2 Secured location. The microturbine shall be located in an area protected from unauthorized entry. Doors to rooms containing a microturbine shall be kept locked, but a key to such locks shall be readily available on the premises to certificate of fitness holders, maintenance personnel, and emergency responders.

3510.5.3 Combustible materials. Combustible material shall not be stored and combustible waste shall not be allowed to accumulate in rooms or within 10 feet (3048 mm) of outdoor areas in which microturbines are located.

3510.5.4 Service contract. The owner of any microturbine installation shall maintain a service contract with the microturbine manufacturer or other qualified service company as long as the installation exists on the premises. A copy of the service contract shall be maintained on the premises and made available for inspection by any department representative.